



Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

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March 11, 2003

Mr. Jeff Kime
Four Winds International, Inc.
P.O. Box 1486
Elkhart, IN 46515-1486

Re: 039-16264
First Significant Permit Revision to
FESOP 039-14036-00220

Dear Mr. Kime:

Four Winds International, Inc. was issued a FESOP on December 9, 1996, and FESOP Renewal No. F039-14036-00220 ended public notice on September 24, 2002, and issuance of the final draft renewal permit is pending. The permit provides approval to operate a motor home/recreational vehicle manufacturing source located at 701 CR 15, Elkhart, Indiana, 46515-1486. A letter requesting changes to the renewal permit was received on October 28, 2002. Pursuant to the provisions of 326 IAC 2-8-11.1(g)(2), a significant revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

The revision to the permit consists of the following:

- (a) Modify the production rates on the Class C Line, Class A - Line 1, and Class A - Line 2 (Diesel Pusher Line) from the respective existing rates of 2.5, 2.0, and 0.375 units per hour to the new rates of 3.125, 1.5, and 0.75 units per hour.
- (b) Relocate the existing source-wide laminating and welding operations, as insignificant activities, into a new building identified as No. 655.
- (c) Relocate the existing final finish department for the Class A - Line 2 (Diesel Pusher Line), facility ID A2FF, into a new building identified as No. 656.
- (d) Install new natural gas fired process heaters, as insignificant activities, at new building Nos. 655 and 656.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Michael Hirtler, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or at 973-575-2555, extension 3229, or in Indiana at 1-800-451-6027.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
MH / EVP

c: File - Elkhart County
Elkhart County Health Department
IDEM Northern Regional Office
Air Compliance Section Inspector - Greg Wingstrom
Compliance Data Section - Karen Nowak
Administration and Development
Technical Support and Modeling - Michele Boner



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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

**Four Winds International, Inc.
 701 County Road 15
 Elkhart, Indiana 46515-1486**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F039-14036-00220	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: Expiration Date:

First Significant Permit Revision No.: 039-16264-00220	Pages Affected: 5-8, 8a, 9, 9a, 30-32, 43, 44
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: March 10, 2003

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary motor home/recreational vehicle manufacturing source.

Authorized Individual:	Jeff Kime, President
Source Address:	701 County Road 15, Elkhart, Indiana 46515-1486
Mailing Address:	P.O. Box 1486, Elkhart, Indiana 46515-1486
General Source Phone:	(574) 266-1111
SIC Code:	3716
County Location:	Elkhart
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

Three (3) motor home product lines as follows:

- (a) One (1) Class C Line, producing a maximum of 3.125 units per hour, installed in January 1992, consisting of the following:
 - (1) Sub-assembly area coating operations, identified as CSA-1, consisting of:
 - (A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray, and cup gun spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.

- (2) Final finish area coating operations, identified as CFF, consisting of:
 - (A) hand, aerosol, cup gun spray, and pressure pot spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (3) Metal frame undercoating spray application area, identified as CUA, with emissions exhausting fugitively into the building.
 - (4) Sub-assembly area woodworking operations, identified as CSA-2, using 1,267 pounds of wood per hour, with particulate matter emissions controlled by one (1) cyclone with bag dust collector exhausting within the building and one (1) cyclone dust collector exhausting to the atmosphere.
- (b) One (1) Class A - Line 1, producing a maximum of 1.5 units per hour, installed in June 1999, consisting of the following:
- (1) Sub-assembly area coating operations, identified as A1SA, consisting of:
 - (A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray and airless spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as A1FF, consisting of:
 - (A) hand, aerosol, high volume low pressure (HVLP) spray, and airless spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (3) Sub-assembly area production operations, including foam insulation cutting and woodworking operations for both Class A Lines 1 and 2, identified as ASA, using 300 pounds of foam insulation and 1,460 pounds of wood per hour, with particulate matter emissions controlled by two (2) cyclones and bag filter, identified as C3, exhausting within the building.

- (c) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 0.75 units per hour, installed in 2002, consisting of the following:
 - (1) Sub-assembly area coating operations, identified as A2SA, consisting of:
 - (A) hand, roll, bead and aerosol application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as A2FF and located in building No. 656, consisting of:
 - (A) hand and aerosol application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas fired combustion units with heat input capacities equal to or less than ten million (10,000,000) BTU per hour, itemized as follows:
 - (1) Building 650 includes twenty-five (25) 0.10 MMBtu per hour infrared tube heaters, four (4) 0.4 MMBtu per hour thermo cyclers, five (5) 0.3 MMBtu per hour gas fired unit furnaces, one (1) 0.4 MMBtu per hour air make up gas fired furnace, one (1) 2.64 MMBtu per hour air make up gas fired furnace, one (1) 0.15 MMBtu per hour barrel gas fired furnace, one (1) 0.1 MMBtu per hour gas fired unit furnace, three (3) 0.25 MMBtu per hour gas fired unit furnaces, one (1) 0.33 MMBtu per hour gas fired unit furnace, and two (2) 0.35 MMBtu per hour gas fired unit furnaces.
 - (2) Building 651 includes one (1) 0.13 MMBtu per hour down draft gas fired furnace, three (3) 0.1 MMBtu per hour gas fired furnaces, and one (1) 0.24 MMBtu per hour gas fired furnace.
 - (3) Building 653 includes one (1) 0.12 MMBtu per hour down draft gas fired furnace, one (1) 0.4 MMBtu per hour thermo cyler, two (2) 0.12 MMBtu per hour infrared tube heaters, and one (1) 1.0 MMBtu per hour air make up gas fired furnace.

- (4) Building 654 includes two (2) 0.55 MMBtu per hour air make up gas fired furnaces, eleven (11) 0.12 MMBtu per hour infrared tube heaters, four (4) 0.4 MMBtu per hour thermo cyclers, one (1) 0.49 MMBtu per hour air make up gas fired furnace, one (1) 0.03 MMBtu per hour gas fired unit furnace, two (2) 0.06 MMBtu per hour gas fired unit furnaces, and one (1) 0.1 MMBtu per hour gas fired unit furnace.
- (5) Buildings 655 and 656 include one (1) 7.7 MMBtu per hour air make up unit, four (4) 0.08 MMBtu per hour roof top heaters, two (2) 0.125 MMBtu per hour radiant heaters, one (1) 0.06 MMBtu per hour unit heater, one (1) 2.64 MMBtu per hour air make up unit, one (1) 0.58 MMBtu per hour furnace, and one (1) 0.04 MMBtu per hour radiant heater.
- (b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons;
- (c) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs;
- (d) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs;
- (e) Paved and unpaved roads and parking lots with public access;
- (f) The following VOC and HAP storage containers:
 - Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids;
- (g) Application of oils, greases, lubricants or other non-volatile materials applied as temporary protective coatings;
- (h) Cleaners and solvents characterized as:
 - (1) Having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38EC (100EF) or;
 - (2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (i) Emergency generators as follows:
 - Reciprocating engines not exceeding 16,000 horsepower, consisting of:
 - (1) one (1) 144 hp natural gas fired reciprocating engine; and
 - (2) one (1) 80 hp natural gas fired reciprocating engine.

- (j) Other activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day:
 - (1) miscellaneous woodworking at Class A - Line 1 subassembly, using 425 pounds of wood per hour, exhausting fugitively within the building;

- (2) hand routing at Class A - Line 1, using up to 500 pounds of prefabricated fiberglass reinforced plastic (FRP) parts per hour, utilizing a cyclone (C4) as particulate matter control and exhausting within the building.
 - (3) steel and aluminum tube plasma/torch cutting and welding at Class C Line, consisting of two (2) floor assembly welding stations each using a maximum of 10 pounds of welding wire per hour and four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all exhausting within the building;
 - (4) steel and aluminum tube plasma/torch cutting and welding at building 655 for Class A - Line 1 and Line 2 (Diesel Pusher), consisting of four (4) floor assembly welding stations each using a maximum of 10 pounds of welding wire per hour and four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all exhausting within the building; and
 - (5) wood trim cutting at Class A - Line 1 final finish area, using up to 10 pounds of wood per hour, utilizing a cyclone with bag filter (C3) as particulate control and exhausting within the building.
- (k) Other activities and categories with negligible PM/PM10 emissions:
- (1) steel and aluminum tube cutting at Class A - Line 1, respectively sawing up to 63 and 130 linear feet per hour at an average thickness less than one (1) inch, with deposition of metal shavings in the building;
 - (2) seven (7) portable dust collectors, as a trivial activity, used at this source to control particulate matter emissions from the facilities and activities listed herein; and
 - (3) hand held routers used at building 655 as a trivial activity.
- (l) Application of miscellaneous solvents and cleaners for maintenance at the Class C, Class A - Line 1, and Class A - Line 2 product line buildings, with VOC emissions below the insignificant thresholds of three (3) pounds per hour or 15 pounds per day.
- (m) Other activities and categories with negligible VOC emissions:
- Class A - Line 1 and Line 2 (Diesel Pusher Line) lamination process, located in building No. 655, using non-volatile adhesives applied with a flow coat application system.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
- (1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) Class C Line, producing a maximum of 3.125 units per hour, installed in January 1992, consisting of the following:
- (1) Sub-assembly area coating operations, identified as CSA-1, consisting of:
 - (A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray, and cup gun spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as CFF, consisting of:
 - (A) hand, aerosol, cup gun spray, and pressure pot spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (3) Metal frame undercoating spray application area, identified as CUA, with emissions exhausting fugitively into the building.
- (b) One (1) Class A - Line 1, producing a maximum of 1.5 units per hour, installed in June 1999, consisting of the following:
- (1) Sub-assembly area coating operations, identified as A1SA, consisting of:
 - (A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray and airless spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as A1FF, consisting of:
 - (A) hand, aerosol, high volume low pressure (HVLP) spray, and airless spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
- (c) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 0.75 units per hour, installed in 2002, consisting of the following:
- (1) Sub-assembly area coating operations, identified as A2SA, consisting of:
 - (A) hand, roll, bead and aerosol application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as A2FF and located in building No. 656, consisting of:
 - (A) hand and aerosol application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (l) Application of miscellaneous solvents and cleaners for maintenance at the Class C, Class A - Line 1, and Class A - Line 2 product line buildings, with VOC emissions below the insignificant thresholds of three (3) pounds per hour or 15 pounds per day.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

The total combined VOC input usage to the Class C, Class A - Line 1, and Class A - Line 2 product lines, including but not limited to the usage of sealants, bonding materials, adhesives, caulks, wood stains, paints and VOC solvents, minus used VOC solvent shipped off site, shall be limited to 99.2 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This usage limit is equivalent to 99.2 tons of VOC emitted per 12 consecutive month period.

Compliance with this limitation, including the potential to emit for insignificant activities, shall limit the source-wide potential to emit of VOC to less than 100 tons per year and make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source. Compliance with this condition shall also make the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD), not applicable to the source.

D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

- (a) The VOC input usage to each of facilities CSA-1, CFF, A1SA, A1FF, and A2FF, including but not limited to sealants, bonding materials, adhesives, caulks, wood stains, paints and VOC solvents, minus used VOC solvent shipped off site, shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This usage limit is equivalent to 25 tons of VOC emitted per 12 consecutive month period, per facility. The VOC usage for wood furniture/cabinet coating is not included in this determination since such usage is regulated at Condition D.1.4.
- (b) Any change or modification which may increase potential VOC usage to twenty-five (25) tons per year at facility A2SA, minus used VOC solvent shipped off site, shall require OAQ's prior approval before such change can take place at either facility. The VOC usage for wood furniture/cabinet coating is not included in this determination since it is regulated at Condition D.1.4.

Compliance with this requirement shall make the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) not applicable to these facilities.

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

Any change or modification which may increase actual VOC emissions to greater than fifteen (15) pounds per day, before add-on controls, when coating metal parts at each of facilities CSA-1, CFF, CUA, A1SA, A1FF, A2SA and A2FF shall require OAQ's prior approval before such change can take place at any of these facilities.

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), surface coatings applied to wood furniture and cabinets at each of facilities CSA-1, CFF, A1SA, A1FF, A2SA or A2FF shall utilize one of the following application methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application
- Heated Airless Spray Application
- Roller Coating
- Brush or Wipe Application
- Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.1.5 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4][326 IAC 2-4.1-1]

- (a) The total combined input usage of any single hazardous air pollutant (HAP) to the Class C, Class A - Line 1, and Class A - Line 2 product lines, minus used HAP solvent shipped off site, shall be limited to less than 10 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This usage limit is equivalent to 10 tons of single HAP emitted per 12 consecutive month period. Compliance with this condition shall limit the source-wide potential to emit a single HAP to less than 10 tons per twelve (12) consecutive month period.
- (b) The total combined input usage of all hazardous air pollutants (HAPs) to the Class C, Class A - Line 1, and Class A - Line 2 product lines, minus used HAP solvent shipped off site, shall be limited to less than 24.7 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This usage limit is equivalent to 24.7 tons of total HAPs emitted per 12 consecutive month period. Compliance with this condition, including the potential to emit for insignificant activities, shall limit the source-wide potential to emit total HAPs to less than 25 tons per 12 consecutive month period.

Compliance with these limitations shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source. Compliance with this condition shall also make the Maximum Achievable Control Technology (MACT) requirements of 326 IAC 2-4.1-1 not applicable to facilities A1SA, A1FF, A2SA and A2FF.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Four Winds International, Inc.
 Source Address: 701 County Road 15, Elkhart, Indiana 46515-1486
 Mailing Address: P.O. Box 1486, Elkhart, Indiana 46515-1486
 FESOP No.: F039-14036-00220
 Facilities: Class A - Line 1 subassembly & final finish coating facilities A1SA & A1FF;
 Class A - Line 2 final finish coating facility A2FF; and Class C Line subassembly
 & final finish coating facilities CSA & CFF
 Parameter: VOC input usage
 Limit: VOC input usage to each facility shall be limited to less than 25 tons per twelve
 (12) consecutive month period, excluding the VOC usage for wood
 furniture/cabinet coating since such usage is regulated at Condition D.1.4.

YEAR: _____

Month	VOC Usage This Month (tons)					VOC Usage Previous 11 Months (tons)					12 Month Total VOC Usage (tons)				
	Class A Line 1		Class A Line 2	Class C Line		Class A Line 1		Class A Line 2	Class C Line		Class A Line 1		Class A Line 2	Class C Line	
	A1SA	A1FF	A2FF	CSA	CFF	A1SA	A1FF	A2FF	CSA	CFF	A1SA	A1FF	A2FF	CSA	CFF
Month 1															
Month 2															
Month 3															

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Four Winds International, Inc.
 Source Address: 701 County Road 15, Elkhart, Indiana 46515-1486
 Mailing Address: P.O. Box 1486, Elkhart, Indiana 46515-1486
 FESOP No.: F039-14036-00220
 Facility: Class C, Class A - Line 1, and Class A - Line 2 product lines
 Parameter: VOC, single and combined HAPs input usage
 Limit: (a) total combined VOC input to the Class C, Class A - Line 1, and Class A - Line 2 product lines shall be limited to 99.2 tons per twelve (12) consecutive month period
 (b) total combined input usage of any single hazardous air pollutant (HAP) to the Class C, Class A - Line 1, and Class A - Line 2 product lines shall be limited to less than 10 tons per twelve (12) consecutive month period
 (c) total combined input usage of all hazardous air pollutants (HAPs) to the Class C, Class A - Line 1, and Class A - Line 2 product lines shall be limited to less than 24.7 tons per twelve (12) consecutive month period

YEAR: _____

Month	Total Class A-1, Class A-2 & Class C Usage This Month (tons)			Total Class A-1, Class A-2 & Class C Usage Previous 11 Months (tons)			Total Class A-1, Class A-2 & Class C 12-Month Usage (tons)		
	VOC	Single* HAP	Combined HAPs	VOC	Single* HAP	Combined HAPs	VOC	Single* HAP	Combined HAPs
Month 1									
Month 2									
Month 3									

*List the single HAP with the greatest emission rate

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	Four Winds International, Inc.
Source Location:	701 CR 15, Elkhart, IN 46515-1486
County:	Elkhart
SIC Code:	3716
Operation Permit No.:	F039-14036-00220
Operation Permit Issuance Date:	January 7, 2003
Significant Permit Revision No.:	039-16264-00220
Permit Reviewer:	Michael Hirtler / EVP

On January 13, 2003, the Office of Air Quality (OAQ) had a notice published in The Truth, Elkhart, Indiana, stating that Four Winds International, Inc. had applied for a Significant Permit Revision to a Federally Enforceable State Operating Permit (FESOP) to modify the three (3) existing motor home production line operations at the existing motor home/recreational vehicle manufacturing source. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On February 12, 2003, OAQ received comments from Bruce Carter Associates, L.L.C., on behalf of Four Winds International, Inc., in relation to the proposed Significant Permit Revision. The comments and related responses follow, with any changes made to the permit shown in bold and deleted permit language shown with a line through it:

Comment 1:

General Construction Condition 1 should be revised by deleting the word "affect" in the second sentence located between the phrases "Prior to any proposed change in construction that may" and "the potential to emit (PTE) of the proposed project" and replaced with the word "increase." Requiring Four Winds to receive IDEM approval for a change that will decrease PTE is unnecessary. Therefore, the sentence should be revised to require approval of changes that will increase PTE.

Response to Comment 1:

The comment pertains to the Significant Permit Revision approval letter, Condition 1, *General Construction Conditions*. This condition requires the Permittee to notify IDEM should there be a change in construction that is inconsistent with the approval and changes the potential to emit (PTE) of the project. Both the PTE and rule applicability for this modification are based on information supplied by the applicant in support of the permit application. Construction changes that increase *or decrease* the PTE can affect and possibly invalidate determinations made during the OAQ approval review process. It is intended that changes not be limited to increases in the PTE and, therefore, there is no change to this condition due to this comment.

Comment 2:

Condition A.5 should be deleted from the permit modification because it implies that the FESOP renewal issued recently to Four Winds is superceded by this modification. That simply is not the case. This modification only modifies specific portions of the permit. As such, the portions of the permit that are not modified are not affected by the First Significant Permit Revision.

Response to Comment 2:

OAQ agrees that a modification approval only affects the existing permit to the extent that the new or modified equipment is listed in the permit, along with any new or revised applicable requirements. The Technical Support Document to this modification highlighted those sections and conditions of existing FESOP No. F039-14036-00220, issued on January 7, 2003, that are revised pursuant to this modification request. Condition A.5 is an existing condition that is unaffected by the modification and appears sequentially on this revised FESOP page (9 of 46). Pursuant to 326 IAC 2-8-11.1, the FESOP is revised by incorporating the significant permit revision (i.e., revised permit pages) into the existing FESOP. Such is done through this approval by attaching the revised pages to the front of the existing FESOP, as explained in the Significant Permit Revision approval letter. There is no change to this condition due to this comment.

Comment 3:

Condition D.1.1, last sentence of first paragraph, should have the TPY VOC limit changed to 99.2 to correspond to the limit cited earlier in the same paragraph.

Response to Comment 3:

OAQ agrees and Condition D.1.1 is revised as follows:

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

The total combined VOC input usage to the Class C, Class A - Line 1, and Class A - Line 2 product lines, including but not limited to the usage of sealants, bonding materials, adhesives, caulks, wood stains, paints and VOC solvents, minus used VOC solvent shipped off site, shall be limited to 99.2 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This usage limit is equivalent to ~~99.5~~ **99.2** tons of VOC emitted per 12 consecutive month period.

Compliance with this limitation, including the potential to emit for insignificant activities, shall limit the source-wide potential to emit of VOC to less than 100 tons per year and make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source. Compliance with this condition shall also make the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD), not applicable to the source.

Comment 4:

Condition D.1.2 and the related reporting form should be removed. This condition in FESOP Renewal No. F039-14036-00220 is under appeal because it imposes VOC usage limits on individual facilities when the source as a whole is subject to a plant-wide VOC usage limit pursuant to Permit Condition D.1.1. Imposing usage limits on individual facilities when the source as a whole is subject to a plant-wide usage limit is unnecessary, unreasonable, and unduly burdensome. In addition, the form titled "FESOP Quarterly Report" should be revised or deleted to conform with the revision identified in this document.

Response to Comment 4:

In reference to the appeal of FESOP Renewal No. F039-14036, 00220, IDEM has not issued a final decision on the appeal; therefore, there is no change to the condition in relation to the appeal. Notwithstanding this final decision, Condition D.1.2 is required to limit the potential to emit VOC from the five (5) listed facilities such that the requirements of 326 IAC 8-1-6 do not apply to these facilities. Removal of this condition would eliminate an enforceable limitation that would otherwise subject an affected facility to the best available control technology (BACT) requirements of 326 IAC 8-1-6. The source can submit a permit application to IDEM, OAQ at any time to request that these limits be removed. At such time, the application must include a BACT analysis. For the purposes of this approval, however, the limits remain unchanged.

In terms of the comment on the relationship between Conditions D.1.1 and D.1.2, the limitations expressed in D.1.2 do not, by default, result in compliance with D.1.1. Since each of five (5) facilities cited in D.1.2(a) alone have a VOC usage limit of below 25 tons per year, their total of 125 tons per year, without consideration of any other VOC emitting facilities at this source, is already above the 100 ton per year source-wide limit established in Condition D.1.1. For this reason, and the reasons discussed above, Conditions D.1.1 and D.1.2 remain as independent limitations of the permit and there is no change to these conditions due to this comment.

Comment 5:

Pages 2 and 5 of 17 of the Technical Support Document (TSD) should reference the FESOP Renewal No. F039-14036-00220 as being issued on January 7, 2003 instead of pending final issuance.

Response to Comment 5:

IDEM, OAQ acknowledges that the date of issuance of the FESOP renewal is January 7, 2003. Both the first page of this TSD Addendum and the cover page of the revised FESOP indicate the final date of FESOP renewal issuance.

Comment 6:

Page 7 of 17 of the TSD in reference to 326 IAC 6-3-2 (Process Operations), item (a), should have the last two sentences of item (a) removed (or the second to last sentence revised) as they are currently being appealed in FESOP Renewal No. F039-14036-00220 because (1) the areas identified in the second to last sentence are areas that contain a number of surface coating manufacturing facilities and, thus, are not themselves individual surface coating manufacturing facilities; and (2) requiring daily coating usage record keeping to demonstrate that a regulation IDEM already has determined is inapplicable for the activities authorized under this permit remains inapplicable is unnecessary, unduly burdensome, and unreasonable when another permit condition that requires IDEM's approval of modifications or changes that could trigger applicability of that regulation. Following are the sentences to remove: "Since surface coating manufacturing facilities CSA-1, CFF, A1SA, A1FF, A2SA, and A2FF each use less than five (5) gallons of coatings per day, exclusive of surface coatings that do not emit or have the potential to emit particulate, the facilities shall not be subject to the control device requirement. Compliance shall continue to be verified through maintenance of daily coating usage records for each facility." Alternatively, the second to last sentence could be revised as follows: "Since the individual surface coating manufacturing facilities located within CSA-1, CFF, A1SA, A1FF, A2SA, and A2FF each use less than five (5) gallons of coatings per day, exclusive of surface coatings that do not emit or have the potential to emit particulate, the facilities shall not be subject to the control device requirement."

Response to Comment 6:

The TSD provides an explanation of the rules applicable to this modification and the method of compliance with such rules. The specific language appearing on page 7 of 17 of the TSD corresponds to existing FESOP Conditions D.1.6 (Particulate Matter (PM)), and related compliance monitoring and record keeping Conditions D.1.9 and D.1.10(b). These existing conditions, and their underlying rules, are applicable, but are unaltered due to this modification request.

In reference to the appeal of FESOP Renewal No. F039-14036, 00220, IDEM has not issued a final decision on the appeal; therefore, there is no change to the condition in relation to the appeal. Notwithstanding this final decision, similar comments on these conditions were received from the commentor during the notice period for existing FESOP No. F039-14036-00220. Therefore, the following response is provided, based on Response to Comment 18 of the Addendum to the TSD for the existing FESOP:

Section A.2 of the permit lists the three (3) motor home product lines at this source. These product lines are divided into individual facilities reflective of product assembly and the final finish process. Product assembly is further separated into coating and non-coating operations. Facility identifications of CSA-1, CFF, A1SA, A1FF, A2SA, and A2FF respectively reflect assembly and final finish coating operations for the Class A, Class -1 and Class -2 product lines.

Particulate emission limitations for surface coating manufacturing processes are provided at 326 IAC 6-3-2(d). In determining the applicability of 326 IAC 6-3-2(d) to the different assembly and coating steps on each product line, the definition of "manufacturing process" has been evaluated. The beginning of this definition states "any single or series of actions, operations or treatments...." Based on this, OAQ has decided that the "series" of surface coating actions on each product line makes each line a "manufacturing process". Segregation of each line into various component coating and assembly activities is inconsistent with the intent of 326 IAC 6-3-2(d), as each step or task contributes to the creation of the final product and not separate intermediate products. Since the product lines are set-up in relatively large open buildings, as indicated by the Permittee, the six (6) referenced facilities include those assembly steps occurring in areas at and adjacent to each product line, and these 6 facilities are considered the manufacturing process.

For the reasons discussed above, the language contained in the TSD, as reflected in Conditions D.1.6, D.1.9 and D.1.10(b), remains unchanged due to this comment.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	Four Winds International, Inc.
Source Location:	701 CR 15, Elkhart, IN 46515-1486
County:	Elkhart
SIC Code:	3716
Operation Permit No.:	F039-14036-00220
Operation Permit Issuance Date:	Final Issuance Pending
Permit Reviewer:	Michael Hirtler / EVP

The Office of Air Quality (OAQ) has reviewed a revision application from Four Winds International, Inc. relating to a modification at the existing motor home/recreational vehicle manufacturing source.

History

On October 28, 2002, Four Winds International, Inc. submitted an application to the OAQ requesting approval to modify the three (3) existing motor home product lines at their existing plant. Four Winds International, Inc. was issued FESOP No. F039-5814-00220 on December 9, 1996. The 30-day comment period on FESOP Renewal No. F039-14036-00220 ended on September 24, 2002, and issuance of the final draft permit is pending.

Explanation of Revisions Requested

On October 28, 2002, Four Winds International, Inc. submitted an application to the OAQ requesting approval to modify the three (3) existing motor home production line operations at their existing plant. This modification includes the following:

- (a) Modify the production rates on the Class C Line, Class A - Line 1, and Class A - Line 2 (Diesel Pusher Line) from the respective existing rates of 2.5, 2.0, and 0.375 units per hour to the new rates of 3.125, 1.5, and 0.75 units per hour.
- (b) Relocate the existing source-wide laminating and welding operations, as insignificant activities, into a new building identified as No. 655.
- (c) Relocate the existing final finish department for the Class A - Line 2 (Diesel Pusher Line), facility ID A2FF, into a new building identified as No. 656.
- (d) Install new natural gas fired process heaters, as insignificant activities, at new building Nos. 655 and 656.

Existing Approvals

The source was issued a FESOP No. F039-5814-00220, issued on December 9, 1996. The source has since received the following:

- (a) First Administrative Amendment No. 039-8246, issued on October 14, 1997;
- (b) Second Administrative Amendment No. 039-9038, issued on November 10, 1997;
- (c) Third Administrative Amendment No. 039-9208, issued on December 3, 1997;
- (d) Fourth Administrative Amendment No. 039-9861, issued on July 8, 1998;
- (e) First Significant Permit Revision No. 039-10568, issued on June 8, 1999;
- (f) First Minor Permit Revision No. 039-15345, issued on February 27, 2002; and

FESOP Renewal No. F039-14036-00220, has been public noticed and is pending final permit issuance.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Any new and relocated equipment associated with this approval request will exhaust fugitively into the buildings and no new stacks are listed in this approval.

Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 28, 2002. Additional information was received on November 20, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (sixteen (16) pages).

Potential To Emit for the Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	5.5
PM-10	5.8
SO ₂	0.0
VOC	318.7
CO	2.6
NO _x	4.9

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
xylene	0.87
methyl ethyl ketone (MEK)	0.88
toluene	17.55
methyl isobutyl ketone (MIBK)	7.37
ethyl benzene	0.09
glycol ethers	2.12
methanol	0.70
hexane	7.08
TOTAL	36.66

Justification for Revision

The FESOP is being revised through a FESOP Significant Permit Revision based on the following:

- (a) This revision is being performed pursuant to 326 IAC IAC 2-8-11.1(g)(2) since the modification requires an adjustment to the existing emissions cap limitation.
- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects calendar year 2000 emissions, based upon the Indiana Air Emission Summary Data for criteria pollutants and the Toxic Release Report maintained by the IDEM Office of Pollution Prevention and Technical Assistance.

Pollutant	Emissions (ton/yr)
PM	9.9
PM10	9.9
SO ₂	0.01
VOC	48.3
CO	0.2
NO _x	1.0
single HAP	3.0
total HAPs	3.0

Existing Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	20.7
PM10	21.1
SO ₂	0.1
VOC	< 100
CO	5.5
NO _x	8.8
single HAP	<10
total HAPs	<25

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon FESOP Renewal No. F039-14036-00220, with final permit issuance pending.

Potential to Emit of Revision After Issuance

The source, issued FESOP Renewal No. F039-14036-00220 on **[ISSUANCE DATE PENDING]**, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	Potential to Emit (PTE) After Issuance (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Class A - Line 1; Class A - Line 2; and Class C coating operations (Sub-assembly & Final Finish)	2.57	2.57	0.00	<99.5 * <99.2	0.00	0.00	<10 (single) <25 (total)
Class A Lines 1 & 2 steel & aluminum ** tube welding	2.41	2.41	0.00	0.00	0.00	0.00	0.00
Class C Line 2 steel & aluminum tube ** welding	2.41	2.41	0.00	0.00	0.00	0.00	0.00
Natural gas combustion as an insignificant activity	0.10	0.39	0.03	0.28	2.64	4.85	0.10
Total PTE for Revision after Issuance	7.49	7.78	0.03	< 100	2.64	4.85	<10 (single) <25 (total)
PSD Threshold Level	250	250	250	250	250	250	N/A

Existing Class A Lines 1 & 2 subassembly ** & final finish woodworking and machining operations	32.34	32.34	0.00	0.00	0.00	0.00	0.00
Existing Class C subassembly & final ** finish woodworking operations	13.23	13.23	0.00	0.00	0.00	0.00	0.00
Existing natural gas combustion as an insignificant activity	0.15	0.60	0.02	0.46	5.49	8.83	0.16
Total PTE for Source after Issuance	45.72	46.17	0.05	< 100	8.13	13.68	<10 (single) <25 (total)
Part 70 Threshold Level	100	100	100	100	100	100	10 (single) 25 (total)

* Reflects revised source-wide VOC emission limitation taken from Condition D.1.1 of FESOP Renewal No. F039-14036-00220, whose final issuance date is pending.

** Reflects 326 IAC 6-3-2(e) allowable emission rate (lb/hr) extrapolated on an equivalent annual basis assuming 8,760 hours of operation.

This modification to an existing minor stationary source is not major because the emission increase after the modification is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements continue to not apply.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) is a precursor for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

There are no new federal rules applicable to this source due to this revision. There are also no changes in the status of any existing federal rules determined as applicable to FESOP Renewal No. F039-14036-00220, with final issuance pending.

State Rule Applicability

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any process or production unit, which in and of itself emits or has the PTE 10 tons per year of any HAP or 25 tons per year of the combination of HAPs, and is constructed or reconstructed after July 27, 1997, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT).

Pursuant to 40 CFR 63.41, this modification to existing operations is not considered a reconstruction because the cost to increase capacity to each product line does not equal or exceed 50% of the cost to construct new comparable processes, and the total source-wide usage of any single HAP and total combination of HAPs shall respectively continue to be limited less than 10 tons and 25 tons per 12 consecutive month period after this revision. Therefore, the requirements of 326 IAC 2-4.1-1 continue to not apply.

326 IAC 6-3-2 (Process Operations)

- (a) On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the following requirement from the previous version of 326 IAC 6-3 (Process Operations), which has been approved into the SIP, will remain an applicable requirement until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action. Therefore, the source shall comply as follows:

Pursuant to 40 CFR 52 Subpart P and FESOP 039-5814-00220 issued on December 9, 1996, the particulate matter from the spray coatings applied at the Class C, Class A - Line 1, and Class A - Line 2 sub-assembly and final finish areas CSA-1, CFF, A1SA, A1FF, A2SA, and A2FF each shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

Under the rule revision, particulate from surface coating manufacturing processes shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications. The rule revision will also exempt sources from such requirements, provided that coating usage is less than five (5) gallons per day. Since surface coating manufacturing facilities CSA-1, CFF, A1SA, A1FF, A2SA, and A2FF each use less than five (5) gallons of coatings per day, exclusive of surface coatings that do not emit or have the potential to emit particulate, the facilities shall not be subject to the control device requirement. Compliance shall continue to be verified through maintenance of daily coating usage records for each facility.

- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This includes the following equipment, as insignificant activities:
- (1) steel and aluminum tube plasma/torch cutting and welding at Class C Line, consisting of two (2) floor assembly welding stations each using a maximum of 10 pounds of welding wire per hour and four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all exhausting within the building; and
 - (2) steel and aluminum tube plasma/torch cutting and welding at building 655 for Class A - Line 1 and Line 2 (Diesel Pusher), consisting of four (4) floor assembly welding stations each using a maximum of 10 pounds of welding wire per hour and four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all exhausting within the building.

There will be no compliance monitoring condition inserted into the permit for these insignificant activities since they have no control device and their actual emissions do not exceed 25 tons per year.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8.

Pursuant to FESOP Renewal No. F039-14036-00220, the Class A - Line 1 coating facilities A1SA and A1FF, and the Class C Line coating facilities CSA-1 and CFF, each have a potential to emit of VOC greater than 25 tons per year. This revision does not change these determinations, and the Permittee will continue to limit the VOC input to each facility to less than 25 tons per year such that the requirements of 326 IAC 8-1-6 continue to not apply after the revision.

For the Class A - Line 2 coating facility A2FF, this revision has increased the PTE of VOC from less than 25 tons per year to greater than 25 tons per year. The Permittee will also limit the VOC input to A2FF to less than 25 tons per year such that the requirements of 326 IAC 8-1-6 will not apply to this facility after the revision. The VOC usage for wood furniture/cabinet coating continues to be not included in these determinations since such usage is regulated at Condition D.1.4.

The Class A - Line 2 coating facility A2SA continues to have a potential to emit of VOC that is less than 25 tons per year after this revision. Therefore, the requirements of 326 IAC 8-1-6 continue to not apply and records will be kept of VOC usage to verify this status.

Testing Requirements

Compliance testing is not required for this revision since the coating material usage and related VOC and volatile organic HAP emissions continue to assume an emission factor of 2,000 pounds of pollutant emitted per ton of pollutant input to the coating operation.

Compliance Requirements

There are no new compliance requirements applicable to the source due to this significant permit revision.

Changes to the Federally Enforceable State Operating Permit (FESOP) due to this Revision:

The following changes are made as the first Significant Permit Revision to FESOP Renewal No. 033-14036-00016 (new language is shown in **bold** and deleted language is shown with a ~~line through it~~):

1. Section A.2 and the Section D.1 facility description box are revised to reflect the product line production rate changes and to acknowledge that the existing Class A - Line 2 final finish area coating operations, A2FF, are re-located into new building No. 656:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

Three (3) motor home product lines as follows:

- (a) One (1) Class C Line, producing a maximum of ~~2.5~~ **3.125** units per hour, installed in January 1992, consisting of the following:
 - (1) Sub-assembly area coating operations, identified as CSA-1, consisting of:
 - (A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray, and cup gun spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as CFF, consisting of:
 - (A) hand, aerosol, cup gun spray, and pressure pot spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (3) Metal frame undercoating spray application area, identified as CUA, with emissions exhausting fugitively into the building.
 - (4) Sub-assembly area woodworking operations, identified as CSA-2, using 1,267 pounds of wood per hour, with particulate matter emissions controlled by one (1) cyclone with bag dust collector exhausting within the building and one (1) cyclone dust collector exhausting to the atmosphere.
- (b) One (1) Class A - Line 1, producing a maximum of ~~2~~ **1.5** units per hour, installed in June 1999, consisting of the following:
 - (1) Sub-assembly area coating operations, identified as A1SA, consisting of:

- (A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray and airless spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
- (2) Final finish area coating operations, identified as A1FF, consisting of:
- (A) hand, aerosol, high volume low pressure (HVLP) spray, and airless spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
- (3) Sub-assembly area production operations, including foam insulation cutting and woodworking operations for both Class A Lines 1 and 2, identified as ASA, using 300 pounds of foam insulation and 1,460 pounds of wood per hour, with particulate matter emissions controlled by two (2) cyclones and bag filter, identified as C3, exhausting within the building.
- (c) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of ~~0.375~~ **0.75** units per hour, installed in 2002, consisting of the following:
- (1) Sub-assembly area coating operations, identified as A2SA, consisting of:
 - (A) hand, roll, bead and aerosol application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as A2FF **and located in building No. 656**, consisting of:
 - (A) hand and aerosol application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) Class C Line, producing a maximum of ~~2.5~~ **3.125** units per hour, installed in January 1992, consisting of the following:
- (1) Sub-assembly area coating operations, identified as CSA-1, consisting of:
 - (A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray, and cup gun spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as CFF, consisting of:
 - (A) hand, aerosol, cup gun spray, and pressure pot spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (3) Metal frame undercoating spray application area, identified as CUA, with emissions exhausting fugitively into the building.
- (b) One (1) Class A - Line 1, producing a maximum of ~~2~~ **1.5** units per hour, installed in June 1999, consisting of the following:
- (1) Sub-assembly area coating operations, identified as A1SA, consisting of:
 - (A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray and airless spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as A1FF, consisting of:
 - (A) hand, aerosol, high volume low pressure (HVLP) spray, and airless spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
- (c) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of ~~0.375~~ **0.75** units per hour, installed in 2002, consisting of the following:
- (1) Sub-assembly area coating operations, identified as A2SA, consisting of:
 - (A) hand, roll, bead and aerosol application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.
 - (2) Final finish area coating operations, identified as A2FF **and located in building No. 656**, consisting of:
 - (A) hand and aerosol application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting fugitively into the building; and
 - (B) hand and aerosol application of miscellaneous solvents and cleaners.

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (l) Application of miscellaneous solvents and cleaners for maintenance at the Class C, Class A - Line 1, and Class A - Line 2 product line buildings, with VOC emissions below the insignificant thresholds of three (3) pounds per hour or 15 pounds per day.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

2. Section A.3 is revised at paragraphs (a), (j), and (k), and new paragraph (m) is inserted, to include the changes to the insignificant activities due to this revision:

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas fired combustion units with heat input capacities equal to or less than ten million (10,000,000) BTU per hour, itemized as follows:
- (1) Building 650 includes twenty-five (25) 0.10 MMBtu per hour infrared tube heaters, four (4) 0.4 MMBtu per hour thermo cyclers, five (5) 0.3 MMBtu per hour gas fired unit furnaces, one (1) 0.4 MMBtu per hour air make up gas fired furnace, one (1) 2.64 MMBtu per hour air make up gas fired furnace, one (1) 0.15 MMBtu per hour barrel gas fired furnace, one (1) 0.1 MMBtu per hour gas fired unit furnace, three (3) 0.25 MMBtu per hour gas fired unit furnaces, one (1) 0.33 MMBtu per hour gas fired unit furnace, and two (2) 0.35 MMBtu per hour gas fired unit furnaces.
 - (2) Building 651 includes one (1) 0.13 MMBtu per hour down draft gas fired furnace, three (3) 0.1 MMBtu per hour gas fired furnaces, and one (1) 0.24 MMBtu per hour gas fired furnace.
 - (3) Building 653 includes one (1) 0.12 MMBtu per hour down draft gas fired furnace, one (1) 0.4 MMBtu per hour thermo cyclers, two (2) 0.12 MMBtu per hour infrared tube heaters, and one (1) 1.0 MMBtu per hour air make up gas fired furnace.
 - (4) Building 654 includes two (2) 0.55 MMBtu per hour air make up gas fired furnaces, eleven (11) 0.12 MMBtu per hour infrared tube heaters, four (4) 0.4 MMBtu per hour thermo cyclers, one (1) 0.49 MMBtu per hour air make up gas fired furnace, one (1) 0.03 MMBtu per hour gas fired unit furnace, two (2) 0.06 MMBtu per hour gas fired unit furnaces, and one (1) 0.1 MMBtu per hour gas fired unit furnace.
 - (5) **Buildings 655 and 656 include one (1) 7.7 MMBtu per hour air make up unit, four (4) 0.08 MMBtu per hour roof top heaters, two (2) 0.125 MMBtu per hour radiant heaters, one (1) 0.06 MMBtu per hour unit heater, one (1) 2.64 MMBtu per hour air make up unit, one (1) 0.58 MMBtu per hour furnace, and one (1) 0.04 MMBtu per hour radiant heater.**
- (j) Other activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day:
- (1) miscellaneous woodworking at Class A - Line 1 subassembly, using 425 pounds of wood per hour, exhausting fugitively within the building;
 - (2) hand routing at Class A - Line 1, using up to 500 pounds of prefabricated fiberglass reinforced plastic (FRP) parts per hour, utilizing a cyclone (C4) as particulate matter control and exhausting within the building.

- (3) steel and aluminum tube plasma/torch cutting and welding at Class C Line, **consisting of two (2) floor assembly welding stations each** using a maximum of ~~75~~ **10** pounds of welding wire per hour and **four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all** exhausting within the building;
 - (4) steel and aluminum tube plasma/torch cutting and welding at **building 655 for Class A - Line 1 and Line 2 (Diesel Pusher), consisting of four (4) floor assembly welding stations each** using a maximum of ~~75~~ **10** pounds of welding wire per hour and **four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all** exhausting within the building; and
 - (5) wood trim cutting at Class A - Line 1 final finish area, using up to 10 pounds of wood per hour, utilizing a cyclone with bag filter (C3) as particulate control and exhausting within the building.
- (k) Other activities and categories with negligible PM/PM10 emissions:
- (1) steel and aluminum tube cutting at Class A - Line 1, respectively sawing up to 63 and 130 linear feet per hour at an average thickness less than one (1) inch, with deposition of metal shavings in the building; ~~and~~
 - (2) seven (7) portable dust collectors, as a trivial activity, used at this source to control particulate matter emissions from the facilities and activities listed herein; **and**
 - (3) **hand held routers used at building 655 as a trivial activity.**
- (m) **Other activities and categories with negligible VOC emissions:**
- Class A - Line 1 and Line 2 (Diesel Pusher Line) lamination process, located in building No. 655, using non-volatile adhesives applied with a flow coat application system.**
3. Condition D.1.1 is revised to adjust the source-wide VOC emissions cap such that the requirements of 326 IAC 2-7 will continue to not apply after the approval of this revision:

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4][326 IAC 2-2][40 CFR 52.21]

The total combined VOC input usage to the Class C, Class A - Line 1, and Class A - Line 2 product lines, including but not limited to the usage of sealants, bonding materials, adhesives, caulks, wood stains, paints and VOC solvents, minus used VOC solvent shipped off site, shall be limited to ~~99.5~~ **99.2** tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This usage limit is equivalent to 99.5 tons of VOC emitted per 12 consecutive month period.

Compliance with this limitation, including the potential to emit for insignificant activities, shall limit the source-wide potential to emit of VOC to less than 100 tons per year and make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source. Compliance with this condition shall also make the requirements of 326 IAC 2-2 and 40 CFR 52.21 (PSD), not applicable to the source.

4. Condition D.1.2(a) is revised to include Class A - Line 2 (final finish area coating operations, A2FF) such that the requirements of 326 IAC 8-1-6 will continue to not apply after the approval of this revision. The related quarterly report form is likewise revised, as shown at the end of this document.

D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

- (a) The VOC input usage to each of facilities CSA-1, CFF, A1SA, ~~and A1FF~~, **and A2FF**, including but not limited to sealants, bonding materials, adhesives, caulks, wood stains, paints and VOC solvents, minus used VOC solvent shipped off site, shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This usage limit is equivalent to 25 tons of VOC emitted per 12 consecutive month period, per facility. The VOC usage for wood furniture/cabinet coating is not included in this determination since such usage is regulated at Condition D.1.4.
- (b) Any change or modification which may increase potential VOC usage to twenty-five (25) tons per year at facilities ~~A2SA or A2FF~~, minus used VOC solvent shipped off site, shall require OAQ's prior approval before such change can take place at either facility. The VOC usage for wood furniture/cabinet coating is not included in this determination since it is regulated at Condition D.1.4.

Compliance with this requirement shall make the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) not applicable to these facilities.

5. Condition D.1.5(b) is revised to adjust the total HAPs emission cap such that the requirements of 326 IAC 2-7 will continue to not apply after the approval of this revision. This same adjustment is made to the related quarterly reporting form in the FESOP, without replication herein.

D.1.5 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4][326 IAC 2-4.1-1]

- (a) The total combined input usage of any single hazardous air pollutant (HAP) to the Class C, Class A - Line 1, and Class A - Line 2 product lines, minus used HAP solvent shipped off site, shall be limited to less than 10 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This usage limit is equivalent to 10 tons of single HAP emitted per 12 consecutive month period. Compliance with this condition shall limit the source-wide potential to emit a single HAP to less than 10 tons per twelve (12) consecutive month period.
- (b) The total combined input usage of all hazardous air pollutants (HAPs) to the Class C, Class A - Line 1, and Class A - Line 2 product lines, minus used HAP solvent shipped off site, shall be limited to less than ~~24.8~~ **24.7** tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month. This usage limit is equivalent to ~~24.8~~ **24.7** tons of total HAPs emitted per 12 consecutive month period. Compliance with this condition, including the potential to emit for insignificant activities, shall limit the source-wide potential to emit total HAPs to less than 25 tons per 12 consecutive month period.

Compliance with these limitations shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source. Compliance with this condition shall also make the Maximum Achievable Control Technology (MACT) requirements of 326 IAC 2-4.1-1 not applicable to facilities A1SA, A1FF, A2SA and A2FF.

Conclusion

The operation of this motor home/recreational vehicle manufacturing source shall be subject to the conditions of the attached proposed Significant Permit Revision No. 033-16264-00016.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Four Winds International, Inc.
 Source Address: 701 County Road 15, Elkhart, Indiana 46515-1486
 Mailing Address: P.O. Box 1486, Elkhart, Indiana 46515-1486
 FESOP No.: F039-14036-00220
 Facilities: Class A - Line 1 subassembly & final finish coating facilities A1SA & A1FF;
Class A - Line 2 final finish coating facility A2FF; and Class C Line
 subassembly & final finish coating facilities CSA & CFF
 Parameter: VOC input usage
 Limit: VOC input usage to each facility shall be limited to less than 25 tons per twelve
 (12) consecutive month period, excluding the VOC usage for wood
 furniture/cabinet coating since such usage is regulated at Condition D.1.4.

YEAR: _____

Month	VOC Usage This Month (tons)				VOC Usage Previous 11 Months (tons)				12 Month Total VOC Usage (tons)			
	Class A - Line 1		Class C Line		Class A - Line 1		Class C Line		Class A - Line 1		Class C Line	
	A1SA	A1FF	CSA	CFF	A1SA	A1FF	CSA	CFF	A1SA	A1FF	CSA	CFF
Month 1												
Month 2												
Month 3												

Month	VOC Usage This Month (tons)					VOC Usage Previous 11 Months (tons)					12 Month Total VOC Usage (tons)				
	Class A Line 1		Class A Line 2		Class C Line	Class A Line 1		Class A Line 2		Class C Line	Class A Line 1		Class A Line 2		Class C Line
	A1SA	A1FF	A2FF	CSA	CFF	A1SA	A1FF	A2FF	CSA	CFF	A1SA	A1FF	A2FF	CSA	CFF
Month 1															
Month 2															
Month 3															

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

Appendix A: Emissions Summary

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit for the Revision (tons/year)

Emissions Generating Activity										
Pollutant	Natural Gas Combustion	Surface Coating Class A - Line 1 Operations	Surface Coating Class A - Line 2 Operations	Surface Coating Class C Operations	Class A-Line 1&2 Misc. Welding & Torch Cutting	Class C Misc. Welding & Torch Cutting				Total
PM	0.10	0.66	0.41	1.50	1.69	1.12				5.5
PM10	0.39	0.66	0.41	1.50	1.69	1.12				5.8
SO2	0.03	0.00	0.00	0.00	0.00	0.00				0.0
NOx	4.85	0.00	0.00	0.00	0.00	0.00				4.9
VOC	0.28	86.51	49.52	182.35	0.00	0.00				318.7
CO	2.64	0.00	0.00	0.00	0.00	0.00				2.6
HAPs	0.10	9.90	5.69	21.06	negl.	negl.				36.76 (total) 17.55 (toluene)

Total emissions based on rated capacity at 8,760 hours/year.

Controlled/Limited Potential to Emit for the Source after the Revision (tons/year)

Emissions Generating Activity									
Pollutant	New & Existing Natural Gas Combustion	Surface Coating Class A - Line 1 Operations	Surface Coating Class A - Line 2 Operations	Surface Coating Class C Operations	Class A - Line 1 * Subassembly Operations	Class C * Subassembly Woodworking	Class A-Line 1&2 Misc. Welding & Torch Cutting	Class C Misc. Welding & Torch Cutting	Total
PM	0.25	0.66	0.41	1.50	0.99	13.23	1.69	1.12	19.9
PM10	0.99	0.66	0.41	1.50	0.99	13.23	1.69	1.12	20.6
SO2	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.1
NOx	13.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.7
VOC	0.74	<99.2 (total coating activities)			0.00	0.00	0.00	0.00	<100
CO	8.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.1
HAPs	0.26	<10 (single)	<10 (single)	<10 (single)	0.00	0.00	negl.	negl.	< 25 (total)

* Existing facility emissions.

Total emissions based on rated capacity at 8,760 hours/year, after control and limitations from Section D of this FESOP Renewal No. 039-14036-00220 for detailed limitations.

Any single HAP emissions from surface coating operations sourcewide have been limited to less than 10 tpy.

Total HAP emissions from surface coating operations sourcewide have been limited to less than 25 tpy.

**Appendix A: Emission Calculations
Natural Gas Combustion
MM BTU/HR <100**

**Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02**

Combustion Unit Type	Heat Capacity (MMBtu/hr)	No. of Units	Pot. Gas Thruput (MMCF/yr)	Emission Factor in lb/MMCF						Potential Emission Rate in tons/year					
				PM*	PM10*	SO2	NOx**	VOC	CO***	PM	PM10	SO2	NOx	VOC	CO
<i>Buildings 655 & 656</i>															
LM01 - make up air unit	7.70	1	67	1.9	7.6	0.6	94.0	5.5	40.0	0.06	0.26	0.02	3.17	0.19	1.35
LM02-LM05 roof top heaters	0.08	4	3	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.01	0.00	0.14	0.01	0.12
LM06 - radiant heater	0.125	1	1	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.00	0.00	0.05	0.00	0.05
LM07 - unit heater	0.06	1	1	1.9	7.6	0.6	100.0	5.5	84.0	0.00	0.00	0.00	0.03	0.00	0.02
FF01 - make-up air unit	2.64	1	23	1.9	7.6	0.6	100.0	5.5	84.0	0.02	0.09	0.01	1.16	0.06	0.97
FF02 - furnace	0.58	1	5	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.02	0.00	0.24	0.01	0.10
FF03 - radiant heater	0.125	1	1	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.05	0.00	0.02
FF04 - radiant heater	0.04	1	0	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.02	0.00	0.01
			102												
Uncontrolled Potential to Emit (tons per year):										0.10	0.39	0.03	4.85	0.28	2.64

Methodology

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
 **Emission Factors for NOx: Uncontrolled = 94 for heat input capacity < 0.3 MMBtu/hr; = 100 for heat input capacity =>0.3 MMBtu/hr
 **Emission Factors for CO: Uncontrolled = 40 for heat input capacity < 0.3 MMBtu/hr; = 84 for heat input capacity =>0.3 MMBtu/hr
 *** The heat input rating for the emergency generators is based on a ratio that approximates heat input to power output of 2545.1 btu/hr / hp . Emergency generator potential to emit based on 500 hours per year operation.

All emission factors are based on normal firing.
 MMBtu = 1,000,000 Btu
 MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput for each building combustion unit (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission Factors for all units except generators from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPL. D 7/98)
 Emission Factors for generators from AP 42, Chapter 3.2, Table 3.2-2 for 4-stroke lean burn engines (SUPPL. F 7/00)
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emission Calculations
Natural Gas Combustion
MM BTU/HR <100**

**Company N: Four Winds International, Inc.
Address Cit: 701 CR 15, Elkhart, IN 46516
Significant F039-16264-00220
FESOP Ren 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02**

Emission Factor in lb/MMcf	HAPs - Organics			HAPs - Metals							Total all HAPs (tons/yr)
	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	
Potential Emission all combustion units (tons per year):	1.066E-04	6.092E-05	3.807E-03	9.138E-02	1.726E-04	2.538E-05	5.584E-05	7.107E-05	1.929E-05	1.066E-04	9.580E-02

Methodology is the same as page 2 of this TSD, Appendix A.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations and Solvent Usage (Page 1 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit --- Class A - Line 1

Material (as applied)	Type of Material Coated	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency	PM Control Efficiency	
<i>Facility: Sub-Assembly Area</i>																			
<i>Miscellaneous Coatings Applied</i>																			
WD-40	metal	6.80	70.00%	0.00%	70.00%	0.00%	30.00%	0.010	1.500	4.76	4.76	0.07	1.71	0.31	0.03	15.87	75%	0%	
SPRAYING T.P.E. DRY LUBE	metal	5.53	99.00%	0.00%	99.00%	0.00%	1.00%	0.001	1.500	5.47	5.47	0.01	0.20	0.04	0.00	547.47	75%	0%	
SPRAY-ON WET LUBE	metal	6.80	80.50%	0.00%	80.50%	0.00%	16.00%	0.005	1.500	5.47	5.47	0.04	0.99	0.18	0.01	34.21	75%	0%	
SPRAY-ON CUTTING OIL	metal	7.13	16.00%	0.00%	16.00%	0.00%	84.00%	0.001	1.500	1.14	1.14	0.00	0.04	0.01	0.01	1.36	75%	0%	
										<i>(metal coating subtotal):</i>		0.12	2.94	0.54	0.05				
<i>Miscellaneous Adhesives Applied ****</i>																			
UNIPLEX 260	wood and plastic	10.50	0.00%	0.00%	0.00%	0.00%	100.00%	0.335	1.500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	0%	
PER-FECT LOK HOT METAL ADHESIVE 34-3182	wood and plastic	8.08	0.00%	0.00%	0.00%	0.00%	100.00%	0.013	1.500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	0%	
SUPERTAK HIGH PERFORMANCE ADHESIVE	wood and plastic	6.40	49.38%	10.00%	39.38%	7.68%	50.63%	0.308	1.500	2.73	2.52	1.16	27.95	5.10	0.00	4.98	100%	0%	
SUPERTAK TRIM ADHESIVE	wood and plastic	6.16	79.80%	10.00%	69.80%	7.40%	20.20%	0.002	1.500	4.64	4.30	0.01	0.31	0.06	0.00	21.29	100%	0%	
STA-PUT II AEROSOL ADHESIVE	wood and plastic	5.93	79.93%	0.00%	79.93%	0.00%	20.07%	0.019	1.500	4.74	4.74	0.14	3.24	0.59	0.00	23.62	100%	0%	
RUSSELL 676	wood and plastic	5.72	90.00%	31.70%	58.30%	21.77%	10.00%	0.137	1.500	4.26	3.33	0.69	16.45	3.00	0.00	33.35	100%	0%	
STA-PUT IV H CYLINDER	wood and plastic	7.81	81.44%	0.00%	81.44%	0.00%	18.56%	0.293	1.500	6.36	6.36	2.80	67.09	12.24	0.00	34.27	100%	0%	
STA-PUT IV H AEROSOL	wood and plastic	7.96	80.97%	0.00%	80.97%	0.00%	19.03%	0.054	1.500	6.45	6.45	0.52	12.53	2.29	0.00	33.87	100%	0%	
ISOPROPYL ALCOHOL FOR CLEANUP	wood and plastic	6.50	99.00%	0.00%	99.00%	0.00%	0.00%	0.035	1.500	6.44	6.44	0.34	8.11	1.48	0.00	ERR	100%	0%	
												5.65	135.67	24.76	0.00				
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																			
C-99 & C-100 CYCLO FAST STARTING FLUID		5.94	93.00%	0.00%	93.00%	0.00%	7.00%	5.4E-04	1.500	5.52	5.52	0.00	0.11	0.02	0.00	78.92	75%	0%	
C-1 & C-5 CYCLO CARB CLEAN B-4668		6.88	100.00%	0.00%	100.00%	0.00%	0.00%	0.005	1.500	6.88	6.88	0.05	1.24	0.23	0.00	ERR	75%	0%	
BRAKE PARTS & CLEANER CYCLO C-111		6.33	100.00%	20.00%	80.00%	15.20%	0.00%	0.015	1.500	5.97	5.06	0.11	2.73	0.50	0.00	ERR	75%	0%	
CAMIE 22/90 CLEANER & DEGREASER		5.86	99.90%	0.00%	99.90%	0.00%	0.10%	0.040	1.500	5.85	5.85	0.35	8.43	1.54	0.00	5854.14	75%	0%	
												0.52	12.51	2.28	0.00				
<i>Miscellaneous Facility-Wide Solvent Usage</i>																			
METHY ETHYL KETONE		6.71	100.00%	0.00%	100.00%	0.00%	0.00%	0.005	1.500	6.71	6.71	0.05	1.21	0.22	0.00	ERR	100%	0%	
ACETONE *		6.61	100.00%	100.00%	0.00%	100.00%	0.00%	0.093	1.500	ERR	0.00	0.00	0.00	0.00	0.00	ERR	100%	0%	
DYNASOLVE CU-5		8.83	97.00%	0.00%	97.00%	0.00%	3.00%	0.002	1.500	8.57	8.57	0.03	0.62	0.11	0.00	285.50	100%	0%	
SOLVENT BLEND ETHANOL A-1		6.76	94.69%	0.00%	94.69%	0.00%	5.31%	0.071	1.500	6.40	6.40	0.68	16.36	2.99	0.00	120.55	100%	0%	
												0.76	18.19	3.32	0.00				
Total Uncontrolled Potential to Emit from Class A - Line 1 Vehicle Sub-Assembly (tons per year):												7.05	169.30	30.90	0.06				

**Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations and Solvent Usage (Page 2 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit --- Class A - Line 1																			
Material (as applied)	Substrate Type Coated	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency	PM Control Efficiency	
<i>Facility: General Class A - Line 1 Building and Equipment Maintenance</i>																			
SPRAY ON OD100 WHITE LITL	metal,wood or fiberglass	6.66	63.00%	0.00%	63.00%	60.00%	0.00%	0.008	gal/hour	10.49	4.20	0.03	0.76	0.14	0.00	ERR	75%	0%	
OSHA SAFETY YELLOW	metal, wood or fiberglass	6.39	57.90%	0.00%	57.90%	0.00%	15.00%	0.002	gal/hour	3.70	3.70	0.01	0.13	0.02	0.00	24.67	75%	0%	
												0.04	0.89	0.16	0.00				
<i>Facility: Final Finish Area</i>																			
<i>Miscellaneous Coatings Applied</i>																			
SUPER DUTY RUBBING COMPOUND	fiberglass	10.66	50.00%	0.00%	50.00%	50.00%	0.00%	0.004	1.500	10.66	5.33	0.03	0.77	0.14	0.00	ERR	100%	0%	
FLAT WHITE SPRAY PAINT 280	fiberglass	5.58	65.00%	0.00%	65.00%	35.00%	0.00%	0.002	1.500	5.58	3.63	0.01	0.26	0.05	0.01	ERR	75%	0%	
GM FLEET WHITE	fiberglass	9.07	46.20%	0.00%	46.20%	53.80%	0.00%	3.3E-05	1.500	9.07	4.19	0.00	0.00	0.00	0.00	ERR	75%	0%	
COLONIAL WHITE SPRAY (SPRAY 'N GO ENAMEL)	fiberglass or wood	6.66	63.00%	25.00%	38.00%	37.00%	0.00%	4.2E-04	1.500	4.02	2.53	0.00	0.04	0.01	0.00	ERR	75%	0%	
TOUCH 'N TONE SPRAY PAINT	metal or wood	5.58	65.00%	0.00%	65.00%	35.00%	0.00%	0.048	1.500	5.58	3.63	0.26	6.27	1.14	0.15	ERR	75%	0%	
SPRAY WAY FURNITURE POLISH 811	wood	7.16	50.00%	0.00%	50.00%	50.00%	0.00%	0.016	1.500	7.16	3.58	0.09	2.06	0.38	0.09	ERR	75%	0%	
BBQ BLACK	metal	6.66	80.00%	0.00%	80.00%	0.00%	50.00%	0.008	1.500	5.33	5.33	0.06	1.53	0.28	0.02	10.66	75%	0%	
												0.46	10.94	2.00	0.27				
												(fiberglass coating subtotal):	0.04	1.07	0.20	0.01			
												(wood coating subtotal):	0.35	8.37	1.53	0.25			
												(metal coating subtotal):	0.33	7.80	1.42	0.17			
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																			
CYCLO C-31 GLASS CLEANER		8.33	100.00%	0.00%	100.00%	0.00%	0.00%	0.018	1.500	8.33	8.33	0.22	5.40	0.99	0.00	ERR	75%	0%	
CRAZY CLEAN 031		8.39	50.00%	0.00%	50.00%	50.00%	0.00%	0.044	1.500	8.39	4.20	0.28	6.64	1.21	0.30	ERR	75%	0%	
SD-20 ALL PURPOSE CLEANER		8.33	23.00%	0.00%	23.00%	77.00%	0.00%	0.008	1.500	8.33	1.92	0.02	0.55	0.10	0.08	ERR	75%	0%	
C-192 MAX CLEAN ALL PURPOSE CLEANER		8.33	98.00%	88.00%	10.00%	2.00%	0.00%	0.011	1.500	0.85	0.83	0.01	0.33	0.06	0.00	ERR	75%	0%	
												0.54	12.92	2.36	0.39				
<i>Miscellaneous Facility-Wide Solvent Usage</i>																			
SOLVENT BLEND - MINERAL SPIRITS		6.58	100.00%	0.00%	100.00%	0.00%	0.00%	0.144	1.500	6.58	6.58	1.42	34.11	6.23	0.00	ERR	100%	0%	
SOLVENT BLEND - S1241		6.41	100.00%	0.00%	100.00%	0.00%	0.00%	0.102	1.500	6.41	6.41	0.98	23.54	4.30	0.00	ERR	100%	0%	
SOLVENT BLEND - S0114		7.08	100.00%	0.00%	100.00%	0.00%	0.00%	0.041	1.500	7.08	7.08	0.44	10.45	1.91	0.00	ERR	100%	0%	
SOLVENT BLEND - PS8022 REDUCER		7.04	100.00%	0.00%	100.00%	0.00%	0.00%	0.055	1.500	7.04	7.04	0.58	13.94	2.54	0.00	ERR	100%	0%	
SOLVENT BLEND - S1381		6.59	100.00%	0.00%	100.00%	0.00%	60.00%	0.504	1.500	6.59	6.59	4.98	119.57	21.82	0.00	10.98	100%	0%	
SOLVENT BLEND - ETHANOL A-1 (190)		6.76	94.69%	0.00%	94.69%	5.31%	0.00%	0.340	1.500	6.76	6.40	3.26	78.35	14.30	0.00	ERR	100%	0%	
												11.66	279.96	51.09	0.00				
Total Uncontrolled Potential to Emit from Class A - Line 1 Final Finish Area (tons per year):												12.66	303.82	55.45	0.66				
Total Uncontrolled Potential to Emit from Class A - Line 1 Sub-Assembly & Final Finish Areas and Maintenance (tons per year):												19.75	474.01	86.51	0.72				
Total Controlled Potential to Emit from Class A Line 1 Sub-Assembly Area (tons per year):										12-mos Input Usage Limit (VOC)	Control Efficiency (PM)	Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr				
Total Controlled Potential to Emit from Class A Line 1 Final Finish Area (tons per year):										19.1%	0.00	7.05	169.30	< 25**	0.66				
Total Controlled Potential to Emit from Class A Line 1 Sub-Assembly & Final Finish Areas, Plus Maintenance (tons per year):										54.9%	0.00	12.66	303.82	< 25**	0.66				
Total Controlled Potential to Emit from Class A Line 1 Sub-Assembly & Final Finish Areas, Plus Maintenance (tons per year):										19.71		473.12	< 50.16	0.72					

**Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations and Solvent Usage (Page 3 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit --- Class A - Line 2 (Diesel Pushers):																			
Material (as applied)	Type of Material Coated	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	Ib VOC /gal solids	Transfer Efficiency	PM Control Efficiency	
<i>Facility: Sub-Assembly Area</i>																			
<i>Miscellaneous Coatings Applied</i>																			
WD-40	metal	6.80	70.00%	0.00%	70.00%	0.00%	30.00%	0.011	0.750	4.76	4.76	0.04	0.94	0.17	0.02	15.87	75%	0%	
SPRAYING T.P.E. DRY LUBE	metal	5.53	99.00%	0.00%	99.00%	0.00%	1.00%	0.001	0.750	5.47	5.47	0.00	0.10	0.02	0.00	547.47	75%	0%	
SPRAY-ON WET LUBE	metal	6.80	80.50%	0.00%	80.50%	0.00%	16.00%	0.006	0.750	5.47	5.47	0.02	0.59	0.11	0.01	34.21	75%	0%	
SPRAY-ON CUTTING OIL	metal	7.13	16.00%	0.00%	16.00%	0.00%	84.00%	0.001	0.750	1.14	1.14	0.00	0.02	0.00	0.00	1.36	75%	0%	
											<i>(metal coating subtotal):</i>								
											0.07	1.65	0.30	0.03					
<i>Miscellaneous Adhesives Applied ****</i>																			
UNIPLEX 260	wood and plastic	10.50	0.00%	0.00%	0.00%	0.00%	100.00%	0.383	0.750	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	0%	
PER-FECT LOK HOT METAL ADHESIVE 34-3182	wood and plastic	8.08	0.00%	0.00%	0.00%	0.00%	100.00%	0.014	0.750	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	0%	
SUPERTAK HIGH PERFORMANCE ADHESIVE	wood and plastic	6.40	49.38%	10.00%	39.38%	7.68%	50.63%	0.352	0.750	2.73	2.52	0.67	15.97	2.91	0.00	4.98	100%	0%	
SUPERTAK TRIM ADHESIVE	wood and plastic	6.16	79.80%	10.00%	69.80%	7.40%	20.20%	0.003	0.750	4.64	4.30	0.01	0.23	0.04	0.00	21.29	100%	0%	
STA-PUT II AEROSOL ADHESIVE	wood and plastic	5.93	79.93%	0.00%	79.93%	0.00%	20.07%	0.022	0.750	4.74	4.74	0.08	1.88	0.34	0.00	23.62	100%	0%	
RUSSELL 676	wood and plastic	5.72	90.00%	31.70%	58.30%	21.77%	10.00%	0.157	0.750	4.26	3.33	0.39	9.42	1.72	0.00	33.35	100%	0%	
STA-PUT IV H CYLINDER	wood and plastic	7.81	81.44%	0.00%	81.44%	0.00%	18.56%	0.335	0.750	6.36	6.36	1.60	38.35	7.00	0.00	34.27	100%	0%	
STA-PUT IV H AEROSOL	wood and plastic	7.96	80.97%	0.00%	80.97%	0.00%	19.03%	0.062	0.750	6.45	6.45	0.30	7.19	1.31	0.00	33.87	100%	0%	
ISOPROPYL ALCOHOL FOR CLEANUP	wood and plastic	6.50	99.00%	0.00%	99.00%	0.00%	0.00%	0.040	0.750	6.44	6.44	0.19	4.63	0.85	0.00	ERR	100%	0%	
											3.24	77.68	14.18	0.00					
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																			
C-99 & C-100 CYCLO FAST STARTING FLUID		5.94	93.00%	0.00%	93.00%	0.00%	7.00%	4.6E-04	0.750	5.52	5.52	0.00	0.05	0.01	0.00	78.92	75%	0%	
C-1 & C-5 CYCLO CARB CLEAN B-4668		6.88	100.00%	0.00%	100.00%	0.00%	0.00%	0.006	0.750	6.88	6.88	0.03	0.74	0.14	0.00	ERR	75%	0%	
BRAKE PARTS & CLEANER CYCLO C-111		6.33	100.00%	20.00%	80.00%	15.20%	0.00%	0.018	0.750	5.97	5.06	0.07	1.64	0.30	0.00	ERR	75%	0%	
CAMIE 22/90 CLEANER & DEGREASER		5.86	99.90%	0.00%	99.90%	0.00%	0.10%	0.046	0.750	5.85	5.85	0.20	4.85	0.88	0.00	5854.14	75%	0%	
											0.30	7.28	1.33	0.00					
<i>Miscellaneous Facility-Wide Solvent Usage</i>																			
METHY ETHYL KETONE		6.71	100.00%	0.00%	100.00%	0.00%	0.00%	0.005	0.750	6.71	6.71	0.03	0.60	0.11	0.00	ERR	100%	0%	
ACETONE *		6.61	100.00%	100.00%	0.00%	100.00%	0.00%	0.107	0.750	ERR	0.00	0.00	0.00	0.00	0.00	ERR	100%	0%	
DYNASOLVE CU-5		8.83	97.00%	0.00%	97.00%	0.00%	3.00%	0.003	0.750	8.57	8.57	0.02	0.46	0.08	0.00	285.50	100%	0%	
SOLVENT BLEND ETHANOL A-1		6.76	94.69%	0.00%	94.69%	0.00%	5.31%	0.081	0.750	6.40	6.40	0.39	9.33	1.70	0.00	120.55	100%	0%	
											0.43	10.40	1.90	0.00					
Total Uncontrolled Potential to Emit from Class A - Line 2 Vehicle Sub-Assembly (tons per year):												4.04	97.01	17.70	0.03				

**Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations and Solvent Usage (Page 4 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit --- Class A - Line 2 (Diesel Pushers):

Material (as applied)	Substrate Type Coated	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	Ib VOC /gal solids	Transfer Efficiency	PM Control Efficiency		
<i>Facility: General Class A - Line 2 Building and Equipment Maintenance</i>																				
SPRAY ON OD100 WHITE LITL	metal,wood or fiberglass	6.66	63.00%	0.00%	63.00%	60.00%	0.00%	0.002	gal/hour	10.49	4.20	0.01	0.23	0.04	0.00	ERR	75%	0%		
OSHA SAFETY YELLOW	metal, wood or fiberglass	6.39	57.90%	0.00%	57.90%	0.00%	15.00%	0.001	gal/hour	3.70	3.70	0.00	0.07	0.01	0.00	24.67	75%	0%		
												0.01	0.29	0.05	0.00					
<i>Facility: Final Finish Area</i>																				
<i>Miscellaneous Coatings Applied</i>																				
SUPER DUTY RUBBING COMPOUND	fiberglass	10.66	50.00%	0.00%	50.00%	50.00%	0.00%	0.005	0.750	10.66	5.33	0.02	0.48	0.09	0.00	ERR	100%	0%		
FLAT WHITE SPRAY PAINT 280	fiberglass	5.58	65.00%	0.00%	65.00%	35.00%	0.00%	0.003	0.750	5.58	3.63	0.01	0.20	0.04	0.00	ERR	75%	0%		
GM FLEET WHITE	fiberglass	9.07	46.20%	0.00%	46.20%	53.80%	0.00%	3.0E-05	0.750	9.07	4.19	0.00	0.00	0.00	0.00	ERR	75%	0%		
COLONIAL WHITE SPRAY (SPRAY 'N GO ENAMEL)	fiberglass or wood	6.66	63.00%	25.00%	38.00%	37.00%	0.00%	4.0E-04	0.750	4.02	2.53	0.00	0.02	0.00	0.00	ERR	75%	0%		
TOUCH 'N TONE SPRAY PAINT	metal or wood	5.58	65.00%	0.00%	65.00%	35.00%	0.00%	0.055	0.750	5.58	3.63	0.15	3.59	0.66	0.09	ERR	75%	0%		
SPRAY WAY FURNITURE POLISH 811	wood	7.16	50.00%	0.00%	50.00%	50.00%	0.00%	0.018	0.750	7.16	3.58	0.05	1.16	0.21	0.05	ERR	75%	0%		
BBQ BLACK	metal	6.66	80.00%	0.00%	80.00%	0.00%	50.00%	0.010	0.750	5.33	5.33	0.04	0.96	0.18	0.01	10.66	75%	0%		
												0.27	6.41	1.17	0.16					
												<i>(fiberglass coating subtotal):</i>		0.03	0.70	0.13	0.01			
												<i>(wood coating subtotal):</i>		0.20	4.77	0.87	0.14			
												<i>(metal coating subtotal):</i>		0.19	4.55	0.83	0.10			
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																				
CYCLO C-31 GLASS CLEANER		8.33	100.00%	0.00%	100.00%	0.00%	0.00%	0.021	0.750	8.33	8.33	0.13	3.15	0.57	0.00	ERR	75%	0%		
CRAZY CLEAN 031		8.39	50.00%	0.00%	50.00%	50.00%	0.00%	0.050	0.750	8.39	4.20	0.16	3.78	0.69	0.17	ERR	75%	0%		
SD-20 ALL PURPOSE CLEANER		8.33	23.00%	0.00%	23.00%	77.00%	0.00%	0.010	0.750	8.33	1.92	0.01	0.34	0.06	0.05	ERR	75%	0%		
C-192 MAX CLEAN ALL PURPOSE CLEANER		8.33	98.00%	88.00%	10.00%	2.00%	0.00%	0.013	0.750	0.85	0.83	0.01	0.19	0.04	0.00	ERR	75%	0%		
												0.31	7.46	1.36	0.23					
<i>Miscellaneous Facility-Wide Solvent Usage</i>																				
SOLVENT BLEND - MINERAL SPIRITS		6.58	100.00%	0.00%	100.00%	0.00%	0.00%	0.165	0.750	6.58	6.58	0.81	19.54	3.57	0.00	ERR	100%	0%		
SOLVENT BLEND - S1241		6.41	100.00%	0.00%	100.00%	0.00%	0.00%	0.117	0.750	6.41	6.41	0.56	13.50	2.46	0.00	ERR	100%	0%		
SOLVENT BLEND - S0114		7.08	100.00%	0.00%	100.00%	0.00%	0.00%	0.047	0.750	7.08	7.08	0.25	5.99	1.09	0.00	ERR	100%	0%		
SOLVENT BLEND - PS8022 REDUCER		7.04	100.00%	0.00%	100.00%	0.00%	0.00%	0.063	0.750	7.04	7.04	0.33	7.98	1.46	0.00	ERR	100%	0%		
SOLVENT BLEND - S1381		6.59	100.00%	0.00%	100.00%	0.00%	60.00%	0.576	0.750	6.59	6.59	2.85	68.33	12.47	0.00	10.98	100%	0%		
SOLVENT BLEND - ETHANOL A-1 (190)		6.76	94.69%	0.00%	94.69%	5.31%	0.00%	0.389	0.750	6.76	6.40	1.87	44.82	8.18	0.00	ERR	100%	0%		
												6.67	160.16	29.23	0.00					
Total Uncontrolled Potential to Emit from Class A - Line 2 Final Finish Area (tons per year):												7.25	174.03	31.76	0.38					
Total Uncontrolled Potential to Emit from Class A - Line 2 Sub-Assembly & Final Finish Areas and Maintenance (tons per year):												11.31	271.33	49.52	0.41					
Total Controlled Potential to Emit from Class A Line 2 Final Finish Area (tons per year):										12-mos Input Usage Limit (VOC)	Control Efficiency (PM)	Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr					
Total Controlled Potential to Emit from Class A - Line 2 Sub-Assembly & Final Finish Areas, Plus Maintenance (tons per year):										21.3%	0.00	7.25	174.03	< 25**	0.38					
										0.00%	0.00%	11.31	271.33	< 42.76	0.41					

**Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations and Solvent Usage (Page 5 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit --- Class C Line																			
Material (as applied)	Type of Material Coated	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency	PM Control Efficiency	
<i>Facility: Sub-Assembly Area</i>																			
<i>Miscellaneous Coatings Applied</i>																			
WD-40	metal	6.80	70.00%	0.00%	70.00%	0.00%	30.00%	0.010	3.125	4.76	4.76	0.15	3.57	0.65	0.07	15.87	75%	0%	
SPRAYING T.P.E. DRY LUBE	metal	5.53	99.00%	0.00%	99.00%	0.00%	1.00%	0.001	3.125	5.47	5.47	0.02	0.41	0.07	0.00	547.47	75%	0%	
SPRAY-ON WET LUBE	metal	6.80	80.50%	0.00%	80.50%	0.00%	16.00%	0.005	3.125	5.47	5.47	0.09	2.05	0.37	0.02	34.21	75%	0%	
SPRAY-ON CUTTING OIL	metal	7.13	16.00%	0.00%	16.00%	0.00%	84.00%	0.001	3.125	1.14	1.14	0.00	0.09	0.02	0.02	1.36	75%	0%	
<i>(metal coating subtotal):</i>												0.25	6.12	1.12	0.11				
<i>Miscellaneous Adhesives Applied ****</i>																			
UNIPLEX 260	wood and plastic	10.50	0.00%	0.00%	0.00%	0.00%	100.00%	0.335	3.125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	0%	
PER-FECT LOK HOT METAL ADHESIVE 34-3182	wood and plastic	8.08	0.00%	0.00%	0.00%	0.00%	100.00%	0.013	3.125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	0%	
SUPERTAK HIGH PERFORMANCE ADHESIVE	wood and plastic	6.40	49.38%	10.00%	39.38%	7.68%	50.63%	0.308	3.125	2.73	2.52	2.43	58.22	10.63	0.00	4.98	100%	0%	
SUPERTAK TRIM ADHESIVE	wood and plastic	6.16	79.80%	10.00%	69.80%	7.40%	20.20%	0.002	3.125	4.64	4.30	0.03	0.64	0.12	0.00	21.29	100%	0%	
STA-PUT II AEROSOL ADHESIVE	wood and plastic	5.93	79.93%	0.00%	79.93%	0.00%	20.07%	0.019	3.125	4.74	4.74	0.28	6.75	1.23	0.00	23.62	100%	0%	
RUSSELL 676	wood and plastic	5.72	90.00%	31.70%	58.30%	21.77%	10.00%	0.137	3.125	4.26	3.33	1.43	34.26	6.25	0.00	33.35	100%	0%	
STA-PUT IV H CYLINDER	wood and plastic	7.81	81.44%	0.00%	81.44%	0.00%	18.56%	0.293	3.125	6.36	6.36	5.82	139.77	25.51	0.00	34.27	100%	0%	
STA-PUT IV H AEROSOL	wood and plastic	7.96	80.97%	0.00%	80.97%	0.00%	19.03%	0.054	3.125	6.45	6.45	1.09	26.10	4.76	0.00	33.87	100%	0%	
ISOPROPYL ALCOHOL FOR CLEANUP	wood and plastic	6.50	99.00%	0.00%	99.00%	0.00%	0.00%	0.035	3.125	6.44	6.44	0.70	16.89	3.08	0.00	ERR	100%	0%	
<i>(miscellaneous adhesive subtotal):</i>												11.78	282.65	51.58	0.00				
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																			
C-99 & C-100 CYCLO FAST STARTING FLUID		5.94	93.00%	0.00%	93.00%	0.00%	7.00%	3.2E-04	3.125	5.52	5.52	0.01	0.13	0.02	0.00	78.92	75%	0%	
C-1 & C-5 CYCLO CARB CLEAN B-4668		6.88	100.00%	0.00%	100.00%	0.00%	0.00%	0.005	3.125	6.88	6.88	0.11	2.58	0.47	0.00	ERR	75%	0%	
BRAKE PARTS & CLEANER CYCLO C-111		6.33	100.00%	20.00%	80.00%	15.20%	0.00%	0.015	3.125	5.97	5.06	0.24	5.70	1.04	0.00	ERR	75%	0%	
CAMIE 22/90 CLEANER & DEGREASER		5.86	99.90%	0.00%	99.90%	0.00%	0.10%	0.040	3.125	5.85	5.85	0.73	17.56	3.21	0.00	5854.14	75%	0%	
<i>(miscellaneous cleaning materials subtotal):</i>												1.08	25.97	4.74	0.00				
<i>Miscellaneous Facility-Wide Solvent Usage</i>																			
METHY ETHYL KETONE		6.71	100.00%	0.00%	100.00%	0.00%	0.00%	0.005	3.125	6.71	6.71	0.10	2.52	0.46	0.00	ERR	100%	0%	
ACETONE *		6.61	100.00%	100.00%	0.00%	100.00%	0.00%	0.093	3.125	ERR	0.00	0.00	0.00	0.00	0.00	ERR	100%	0%	
DYNASOLVE CU-5		8.83	97.00%	0.00%	97.00%	0.00%	3.00%	0.002	3.125	8.57	8.57	0.05	1.28	0.23	0.00	285.50	100%	0%	
SOLVENT BLEND ETHANOL A-1		6.76	94.69%	0.00%	94.69%	0.00%	5.31%	0.071	3.125	6.40	6.40	1.42	34.09	6.22	0.00	120.55	100%	0%	
<i>(miscellaneous solvent usage subtotal):</i>												1.58	37.89	6.91	0.00				
Total Uncontrolled Potential to Emit from Class C Line Vehicle Sub-Assembly (tons per year):												14.69	352.63	64.35	0.11				

**Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations and Solvent Usage (Page 6 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit --- Class C Line																				
Material (as applied)	Substrate Type Coated	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	Ib VOC /gal solids	Transfer Efficiency	PM Control Efficiency		
<i>Facility: Undercoating Area</i>																				
C-35 CYCLO RUBBERIZED UNDERCOATING	metal	9.33	100.00%	0.00%	100.00%	0.00%	0.00%	0.017	3.125	9.33	9.33	0.50	11.90	2.17	0.00	ERR	75%	0%		
<i>Facility: General Class C Building and Equipment Maintenance</i>																				
SPRAY ON OD100 WHITE LITL	metal,wood or fiberglass	6.66	63.00%	0.00%	63.00%	60.00%	0.00%	0.015	gal/hour	10.49	4.20	0.06	1.51	0.28	0.00	ERR	75%	0%		
OSHA SAFETY YELLOW	metal, wood or fiberglass	6.39	57.90%	0.00%	57.90%	0.00%	15.00%	0.003	gal/hour	3.70	3.70	0.01	0.22	0.04	0.00	ERR	75%	0%		
												0.07	1.73	0.32	0.00					
<i>Facility: Final Finish Area</i>																				
<i>Miscellaneous Coatings Applied</i>																				
SUPER DUTY RUBBING COMPOUND	fiberglass	10.66	50.00%	0.00%	50.00%	50.00%	0.00%	0.004	3.125	10.66	5.33	0.07	1.60	0.29	0.00	ERR	100%	0%		
FLAT WHITE SPRAY PAINT 280	fiberglass	5.58	65.00%	0.00%	65.00%	35.00%	0.00%	0.002	3.125	5.58	3.63	0.02	0.54	0.10	0.01	ERR	75%	0%		
GM FLEET WHITE	fiberglass	9.07	46.20%	0.00%	46.20%	53.80%	0.00%	2.0E-05	3.125	9.07	4.19	0.00	0.01	0.00	0.00	ERR	75%	0%		
COLONIAL WHITE SPRAY (SPRAY 'N GO ENAMEL)	fiberglass or wood	6.66	63.00%	25.00%	38.00%	37.00%	0.00%	2.5E-04	3.125	4.02	2.53	0.00	0.05	0.01	0.00	ERR	75%	0%		
TOUGH 'N TONE SPRAY PAINT	metal or wood	5.58	65.00%	0.00%	65.00%	35.00%	0.00%	0.048	3.125	5.58	3.63	0.54	13.06	2.38	0.32	ERR	75%	0%		
SPRAY WAY FURNITURE POLISH 811	wood	7.16	50.00%	0.00%	50.00%	50.00%	0.00%	0.016	3.125	7.16	3.58	0.18	4.30	0.78	0.20	ERR	75%	0%		
BBQ BLACK	metal	6.66	80.00%	0.00%	80.00%	0.00%	50.00%	0.008	3.125	5.33	5.33	0.13	3.20	0.58	0.04	10.66	75%	0%		
												0.95	22.75	4.15	0.57					
												<i>(fiberglass coating subtotal):</i>	<i>0.09</i>	<i>2.20</i>	<i>0.40</i>	<i>0.02</i>				
												<i>(wood coating subtotal):</i>	<i>0.73</i>	<i>17.40</i>	<i>3.18</i>	<i>0.52</i>				
												<i>(metal coating subtotal):</i>	<i>0.68</i>	<i>16.25</i>	<i>2.97</i>	<i>0.36</i>				
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																				
CYCLO C-31 GLASS CLEANER		8.33	100.00%	0.00%	100.00%	0.00%	0.00%	0.018	3.125	8.33	8.33	0.47	11.25	2.05	0.00	ERR	75%	0%		
CRAZY CLEAN 031		8.39	50.00%	0.00%	50.00%	50.00%	0.00%	0.044	3.125	8.39	4.20	0.58	13.84	2.53	0.63	ERR	75%	0%		
SD-20 ALL PURPOSE CLEANER		8.33	23.00%	0.00%	23.00%	77.00%	0.00%	0.008	3.125	8.33	1.92	0.05	1.15	0.21	0.18	ERR	75%	0%		
C-192 MAX CLEAN ALL PURPOSE CLEANER		8.33	98.00%	88.00%	10.00%	2.00%	0.00%	0.011	3.125	0.85	0.83	0.03	0.69	0.13	0.01	ERR	75%	0%		
												1.12	26.93	4.91	0.81					
<i>Miscellaneous Facility-Wide Solvent Usage</i>																				
SOLVENT BLEND - MINERAL SPIRITS		6.58	100.00%	0.00%	100.00%	0.00%	0.00%	0.144	3.125	6.58	6.58	2.96	71.06	12.97	0.00	ERR	100%	0%		
SOLVENT BLEND - S1241		6.41	100.00%	0.00%	100.00%	0.00%	0.00%	0.102	3.125	6.41	6.41	2.04	49.04	8.95	0.00	ERR	100%	0%		
SOLVENT BLEND - S0114		7.08	100.00%	0.00%	100.00%	0.00%	0.00%	0.041	3.125	7.08	7.08	0.91	21.77	3.97	0.00	ERR	100%	0%		
SOLVENT BLEND - PS8022 REDUCER		7.04	100.00%	0.00%	100.00%	0.00%	0.00%	0.055	3.125	7.04	7.04	1.21	29.04	5.30	0.00	ERR	100%	0%		
SOLVENT BLEND - S1381		6.59	100.00%	0.00%	100.00%	0.00%	60.00%	0.504	3.125	6.59	6.59	10.38	249.10	45.46	0.00	10.98	100%	0%		
SOLVENT BLEND - ETHANOL A-1 (190)		6.76	94.69%	0.00%	94.69%	5.31%	0.00%	0.340	3.125	6.76	6.40	6.80	163.23	29.79	0.00	ERR	100%	0%		
												24.30	583.24	106.44	0.00					
Total Uncontrolled Potential to Emit from Class C Line Final Finish Area (tons per year):												26.37	632.91	115.51	1.38					
Total Uncontrolled Potential to Emit from Class C Line Sub-Assembly & Final Finish Areas and Undercoating & Maintenance (tons per year):												41.63	999.17	182.35	1.50					
Total Controlled Potential to Emit from Class C Line Sub-Assembly Area (tons per year):										38.85%	0.00	14.69	352.63	< 25**	0.11					
Total Controlled Potential to Emit from Class C Line Final Finish Area (tons per year):										21.64%	0.00	26.37	632.91	< 25**	1.38					
Total Controlled Potential to Emit from Class C Line Sub-Assembly & Final Finish Areas, Plus Maintenance & Undercoating (tons per year):										41.06	0.00	41.06	985.54	< 52.49	1.50					
Total Controlled Potential to Emit from Source (Class A Line 1, Class A Line 2, & Class C Line) (tons per year):										31.41%	0.00%	72.08	1730.00	< 100***	2.63					

Methodology:
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids) * Transfer Efficiency
Total = Sum of Worst Coatings per booth + Sum of all solvents used
Controlled VOC Emission Rate = Uncontrolled Emission Rate * (1 - VOC Input Limitation)
Controlled PM Emission Rate = Uncontrolled Emission Rate * (1 - Control Efficiency)

* Pursuant to 326 IAC 1-2-48, acetone is a nonphotochemically reactive hydrocarbon and the organic content is considered as water for compliance calculation purposes.
** The VOC input usage at the Class A Line 1 Subassembly Area; the Class A Line 1 Final Finish Area; the Class C Subassembly Area; & the Class C Final Finish Area, shall be limited in each area to less than 25 tons per twelve (12) consecutive month period. The VOC input shall include, but not be limited to, sealants, bonding materials, adhesives, caulks, wood stains, paints and VOC solvents. Compliance with this limitation in each area will make the requirements of 326 IAC 8-1-6 (BACT) not applicable to that area.
*** The total combined VOC input usage at the Class A Line 1 Subassembly Area; the Class A Line 1 Final Finish Area; the Class A Line 2 Subassembly Area; the Class A Line 2 Final Finish Area; the Class C Subassembly Area; & the Class C Final Finish Area, shall be limited to less than 99.5 tons per twelve (12) consecutive month period. This VOC input usage limit is required to limit the source-wide potential to emit VOC to less than 100 tons per 12 consecutive month period. The VOC input shall include, but not be limited to, sealants, bonding materials, adhesives, caulks, wood stains, paints and VOC solvents. Compliance with this limitation shall make the requirements of 326 IAC 2-7 (Part 70) not applicable.
**** IDEM, OAQ, Compliance Branch, has determined that the spray application of adhesives is not considered as surface coating, pursuant to 326 IAC 6-3-1.5(5). There is no potential to emit particulate from this process due to deposition of material at the work area.

**Appendix A: Emission Calculations
Hazardous Air Pollutants (HAPs)
From Surface Coating Operations and Solvent Usage (page 1 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit --- Class A - Line 1

Material (as applied)	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MEK	Weight % toluene	Weight % MIBK	Weight % ethyl benzene	Weight % glycol ethers	Weight % methanol	Weight % hexane	HAP Emission Rates (tons per year)									
												Xylene	MEK	toluene	MIBK	ethyl benzene	glycol ethers	methanol	hexane	Total All HAPs	
<i>Facility: Sub-Assembly Area</i>																					
<i>Miscellaneous Coatings Applied</i>																					
WD-40	6.80	0.010	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPRAYING T.P.E. DRY LUBE	5.53	0.001	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPRAY-ON WET LUBE	6.80	0.005	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SPRAY-ON CUTTING OIL	7.13	0.001	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<i>Miscellaneous Adhesives Applied</i>																					
UNIPLEX 260	10.50	0.335	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
PER-FECT LOK HOT METAL ADHESIVE 34-3182	8.08	0.013	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SUPERTAK HIGH PERFORMANCE ADHESIVE	6.40	0.308	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SUPERTAK TRIM ADHESIVE	6.16	0.002	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	70.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	
STA-PUT II AEROSOL ADHESIVE	5.93	0.019	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	
RUSSELL 676	5.72	0.137	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	1.80	
STA-PUT IV H CYLINDER	7.81	0.293	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
STA-PUT IV H AEROSOL	7.96	0.054	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ISOPROPYL ALCOHOL FOR CLEANUP	6.50	0.035	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
												0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.93	1.93	
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																					
C-99 & C-100 CYCLO FAST STARTING FLUID	5.94	5.4E-04	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
C-1 & C-5 CYCLO CARB CLEAN B-4668	6.88	0.005	1.500	0.00%	10.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.05	
BRAKE PARTS & CLEANER CYCLO C-111	6.33	0.015	1.500	0.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.19	
CAMIE 22/90 CLEANER & DEGREASER	5.86	0.040	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
												0.00	0.02	0.19	0.00	0.02	0.00	0.00	0.00	0.23	
<i>Miscellaneous Facility-Wide Solvent Usage</i>																					
METHY ETHYL KETONE	6.71	0.005	1.500	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.22	
ACETONE *	6.61	0.093	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DYNASOLVE CU-5	8.83	0.002	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SOLVENT BLEND ETHANOL A-1	6.76	0.071	1.500	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.32	
												0.00	0.22	0.00	0.32	0.00	0.00	0.00	0.00	0.54	
Total Uncontrolled Potential to Emit from Class A - Line 1 Vehicle Sub-Assembly Area (tons per year):													0.00	0.24	0.19	0.32	0.02	0.00	0.00	1.93	2.70

**Appendix A: Emission Calculations
Hazardous Air Pollutants (HAPs)
From Surface Coating Operations and Solvent Usage (Page 2 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit -- Class A - Line 1

Material (as applied)	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MEK	Weight % toluene	Weight % MIBK	Weight % ethyl benzene	Weight % glycol ethers	Weight % methanol	Weight % hexane	HAP Emission Rates (tons per year)																					
												Xylene	MEK	toluene	MIBK	ethyl benzene	glycol ethers	methanol	hexane	Total All HAPs													
<i>Facility: General Class A - Line 1 Building and Equipment Maintenance</i>																																	
SPRAY ON OD100 WHITE LITL	6.66	0.005	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
OSHA SAFETY YELLOW	6.39	0.001	1.500	25.00%	0.00%	1.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01												
												0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01												
<i>Facility: Final Finish Area</i>																																	
<i>Miscellaneous Coatings Applied</i>																																	
SUPER DUTY RUBBING COMPOUND	10.66	0.004	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
FLAT WHITE SPRAY PAINT 280	5.58	0.002	1.500	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01												
GM FLEET WHITE	9.07	3.3E-05	1.500	13.00%	0.00%	0.00%	0.00%	0.00%	2.62%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
COLONIAL WHITE SPRAY (SPRAY 'N GO ENAMEL	6.66	4.2E-04	1.500	5.00%	10.00%	32.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00													
TOUCH 'N TONE SPRAY PAINT	5.58	0.048	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
SPRAY WAY FURNITURE POLISH 811	7.16	0.016	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
BBQ BLACK	6.66	0.008	1.500	10.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.11												
												0.04	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.13												
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																																	
CYCLO C-31 GLASS CLEANER	8.33	0.018	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
CRAZY CLEAN 031	8.39	0.044	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
SD-20 ALL PURPOSE CLEANER	8.33	0.008	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	8.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.04												
C-192 MAX CLEAN ALL PURPOSE CLEANER	8.33	0.011	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	6.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.04												
												0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.07												
<i>Miscellaneous Facility-Wide Solvent Usage</i>																																	
SOLVENT BLEND - MINERAL SPIRITS	6.58	0.144	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
SOLVENT BLEND - S1241	6.41	0.102	1.500	0.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	1.29	0.00	0.00	0.00	0.00	0.00	0.00	1.29												
SOLVENT BLEND - S0114	7.08	0.041	1.500	10.00%	0.00%	70.00%	10.00%	0.00%	0.00%	10.00%	0.00%	0.19	0.00	1.33	0.19	0.00	0.00	0.00	0.19	0.00	1.91												
SOLVENT BLEND - PS8022 REDUCER	7.04	0.055	1.500	0.00%	0.00%	70.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00	0.00	1.78	0.00	0.00	0.51	0.00	0.00	2.29													
SOLVENT BLEND - S1381	6.59	0.504	1.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
SOLVENT BLEND - ETHANOL A-1 (190)	6.76	0.340	1.500	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	1.51	0.00	0.00	0.00	0.00	0.00	1.51												
												0.19	0.00	4.40	1.70	0.00	0.51	0.19	0.00	7.00													
Total Uncontrolled Potential to Emit from Class A - Line 1 Final Finish Area (tons per year):												0.23	0.00	4.49	1.70	0.00	0.58	0.19	0.00	7.19													
Total Uncontrolled Potential to Emit from Class A - Line 1 Sub-Assembly & Final Finish Areas & Maintenance (tons per year):												0.24	0.24	4.68	2.02	0.02	0.58	0.19	1.93	9.90													
Total Controlled Potential to Emit from Class A - Line 1 Sub-Assembly & Final Finish Areas (tons per year):												0.24	0.24	4.68	2.02	0.02	0.58	0.19	1.93	9.90													

**Appendix A: Emission Calculations
Hazardous Air Pollutants (HAPs)
From Surface Coating Operations and Solvent Usage (page 3 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit --- Class A - Line 2 (Diesel Pushers)

Material (as applied)	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MEK	Weight % toluene	Weight % MIBK	Weight % ethyl benzene	Weight % glycol ethers	Weight % methanol	Weight % hexane	HAP Emission Rates (tons per year)									
												Xylene	MEK	toluene	MIBK	ethyl benzene	glycol ethers	methanol	hexane	Total All HAPs	
<i>Facility: Sub-Assembly Area</i>																					
<i>Miscellaneous Coatings Applied</i>																					
WD-40	6.80	0.011	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPRAYING T.P.E. DRY LUBE	5.53	0.001	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPRAY-ON WET LUBE	6.80	0.006	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPRAY-ON CUTTING OIL	7.13	0.001	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Miscellaneous Adhesives Applied</i>																					
UNIPLEX 260	10.50	0.383	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PER-FECT LOK HOT METAL ADHESIVE 34-3182	8.08	0.014	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUPERTAK HIGH PERFORMANCE ADHESIVE	6.40	0.352	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SUPERTAK TRIM ADHESIVE	6.16	0.003	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	70.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04
STA-PUT II AEROSOL ADHESIVE	5.93	0.022	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04
RUSSELL 676	5.72	0.157	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03	1.03
STA-PUT IV H CYLINDER	7.81	0.335	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STA-PUT IV H AEROSOL	7.96	0.062	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ISOPROPYL ALCOHOL FOR CLEANUP	6.50	0.040	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12	1.12
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																					
C-99 & C-100 CYCLO FAST STARTING FLUID	5.94	4.6E-04	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-1 & C-5 CYCLO CARB CLEAN B-4668	6.88	0.006	0.750	0.00%	10.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.03
BRAKE PARTS & CLEANER CYCLO C-111	6.33	0.018	0.750	0.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11
CAMIE 22/90 CLEANER & DEGREASER	5.86	0.046	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												0.00	0.01	0.11	0.00	0.01	0.00	0.00	0.00	0.00	0.14
<i>Miscellaneous Facility-Wide Solvent Usage</i>																					
METHY ETHYL KETONE	6.71	0.005	0.750	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
ACETONE *	6.61	0.107	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DYNASOLVE CU-5	8.83	0.003	0.750	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOLVENT BLEND ETHANOL A-1	6.76	0.081	0.750	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.18
												0.00	0.11	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.29
Total Uncontrolled Potential to Emit from Class A - Line 2 Vehicle Sub-Assembly (tons per year):												0.00	0.12	0.11	0.18	0.01	0.00	0.00	1.12	1.55	

**Appendix A: Emission Calculations
Hazardous Air Pollutants (HAPs)
From Surface Coating Operations and Solvent Usage (page 5 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit --- Class C Line

Material (as applied)	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MEK	Weight % toluene	Weight % MIBK	Weight % ethyl benzene	Weight % glycol ethers	Weight % methanol	Weight % hexane	HAP Emission Rates (tons per year)												
												Xylene	MEK	toluene	MIBK	ethyl benzene	glycol ethers	methanol	hexane	Total All HAPs				
<i>Facility: Sub-Assembly Area</i>																								
<i>Miscellaneous Coatings Applied</i>																								
WD-40	6.80	0.010	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SPRAYING T.P.E. DRY LUBE	5.53	0.001	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SPRAY-ON WET LUBE	6.80	0.005	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SPRAY-ON CUTTING OIL	7.13	0.001	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
<i>Miscellaneous Adhesives Applied</i>																								
UNIPLEX 260	10.50	0.335	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
PER-FECT LOK HOT METAL ADHESIVE 34-3182	8.08	0.013	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SUPERTAK HIGH PERFORMANCE ADHESIVE	6.40	0.308	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SUPERTAK TRIM ADHESIVE	6.16	0.002	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	70.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12		
STA-PUT II AEROSOL ADHESIVE	5.93	0.019	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15		
RUSSELL 676	5.72	0.137	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.75	3.75		
STA-PUT IV H CYLINDER	7.81	0.293	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
STA-PUT IV H AEROSOL	7.96	0.054	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
ISOPROPYL ALCOHOL FOR CLEANUP	6.50	0.035	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.03	4.03		
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																								
C-99 & C-100 CYCLO FAST STARTING FLUID	5.94	3.2E-04	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
C-1 & C-5 CYCLO CARB CLEAN B-4668	6.88	0.005	3.125	0.00%	10.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.09	0.09		
BRAKE PARTS & CLEANER CYCLO C-111	6.33	0.015	3.125	0.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.39		
CAMIE 22/90 CLEANER & DEGREASER	5.86	0.040	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
												0.00	0.05	0.39	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.48		
<i>Miscellaneous Facility-Wide Solvent Usage</i>																								
METHY ETHYL KETONE	6.71	0.005	3.125	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46		
ACETONE *	6.61	0.093	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
DYNASOLVE CU-5	8.83	0.002	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SOLVENT BLEND ETHANOL A-1	6.76	0.071	3.125	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.66		
												0.00	0.46	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	1.12		
Total Uncontrolled Potential to Emit from Class C Vehicle Sub-Assembly Area (tons per year):												0.00	0.51	0.39	0.66	0.05	0.00	0.00	4.03	5.63				

**Appendix A: Emission Calculations
Hazardous Air Pollutants (HAPs)
From Surface Coating Operations and Solvent Usage (Page 6 of 6)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
Significant Permit Revision No.: 039-16264-00220
FESOP Renewal No.: 039-14036-00220
Reviewer: Michael Hirtler / EVP
Date: 11/07/02

Uncontrolled Potential to Emit -- Class C Line

Material (as applied)	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MEK	Weight % toluene	Weight % MIBK	Weight % ethyl benzene	Weight % glycol ethers	Weight % methanol	Weight % hexane	HAP Emission Rates (tons per year)								Total All HAPs																
												Xylene	MEK	toluene	MIBK	ethyl benzene	glycol ethers	methanol	hexane																	
<i>Facility: Undercoating Area</i>																																				
C-35 CYCLO RUBBERIZED UNDERCOATING	9.33	0.017	3.125	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43												
<i>Facility: General Class C Building and Equipment Maintenance</i>																																				
SPRAY ON OD100 WHITE LITL	6.66	0.005	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
OSHA SAFETY YELLOW	6.39	0.001	3.125	25.00%	0.00%	1.00%	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03												
<i>Facility: Final Finish Area</i>																																				
<i>Miscellaneous Coatings Applied</i>																																				
SUPER DUTY RUBBING COMPOUND	10.66	0.004	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
FLAT WHITE SPRAY PAINT 280	5.58	0.002	3.125	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02												
GM FLEET WHITE	9.07	2.0E-05	3.125	13.00%	0.00%	0.00%	0.00%	2.62%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
COLONIAL WHITE SPRAY (SPRAY 'N GO ENAMEL	6.66	2.5E-04	3.125	5.00%	10.00%	32.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01												
TOUCH 'N TONE SPRAY PAINT	5.58	0.048	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
SPRAY WAY FURNITURE POLISH 811	7.16	0.016	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
BBQ BLACK	6.66	0.008	3.125	10.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.07	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22												
													0.07	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25												
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																																				
CYCLO C-31 GLASS CLEANER	8.33	0.018	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
CRAZY CLEAN 031	8.39	0.044	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
SD-20 ALL PURPOSE CLEANER	8.33	0.008	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.07												
C-192 MAX CLEAN ALL PURPOSE CLEANER	8.33	0.011	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	6.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.08												
													0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.15												
<i>Miscellaneous Facility-Wide Solvent Usage</i>																																				
SOLVENT BLEND - MINERAL SPIRITS	6.58	0.144	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
SOLVENT BLEND - S1241	6.41	0.102	3.125	0.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.68												
SOLVENT BLEND - S0114	7.08	0.041	3.125	10.00%	0.00%	70.00%	10.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.40	0.00	2.78	0.40	0.00	0.00	0.40	0.00	0.00	0.00	0.00	3.97												
SOLVENT BLEND - PS8022 REDUCER	7.04	0.055	3.125	0.00%	0.00%	70.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00	0.00	3.71	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00	4.77												
SOLVENT BLEND - S1381	6.59	0.504	3.125	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
SOLVENT BLEND - ETHANOL A-1 (190)	6.76	0.340	3.125	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	3.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.15												
													0.40	0.00	9.18	3.54	0.00	1.06	0.40	0.00	0.00	0.00	0.00	14.57												
Total Uncontrolled Potential to Emit from Class C Final Finish Area (tons per year):													0.47	0.00	9.35	3.54	0.00	1.21	0.40	0.00	14.97															
Total Uncontrolled Potential to Emit from Class C Sub-Assembly & Final Finish Areas & Maintenance and Undercoating (tons per year):													0.49	0.51	10.18	4.20	0.05	1.21	0.40	4.03	21.06															
Total Controlled Potential to Emit from Class C Sub-Assembly & Final Finish Areas & Maintenance and Undercoating (tons per year):													0.49	0.51	10.18	4.20	0.05	1.21	0.40	4.03	21.06															
Total Uncontrolled Potential to Emit from Source (Class A - Line 1, Class A - Line 2, & Class C Line) (tons per year):													0.87	0.88	17.55	7.37	0.09	2.12	0.70	7.08	36.66															
Total Controlled Potential to Emit from Source (Class A - Line 1, Class A - Line 2, & Class C Line) (tons per year):													0.87	0.88	<10	7.37	0.09	2.12	0.70	7.08	<25															

Methodology:

Uncontrolled Potential HAP Emission Rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs
 Limited Potential HAP Emission Rate (tons/yr) = Uncontrolled Potential HAP Emission Rate * Coating Material Input Limit (such that single HAP emissions <10 tpy and total HAP emissions < 25 tpy)

* Pursuant to 326 IAC 1-2-48, acetone is a nonphotochemically reactive hydrocarbon and the organic content is considered as water for compliance calculation purposes.

Appendix A: Welding and Thermal Cutting *

Company Name: Four Winds International, Inc.
 Address City IN Zip: 701 CR 15, Elkhart, IN 46516
 Significant Permit Revision No.: 039-16264-00220
 FESOP Renewal No.: 039-14036-00220
 Reviewer: Michael Hirtler / EVP
 Date: 11/07/02

PROCESS	Total Max. Electrode Consumption (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode)					EMISSIONS (lb/hr)					TOTAL HAPS (lb/hr)
			PM = PM10	Manganese	Nickel	Cobalt	Chromium	PM = PM10	Manganese	Nickel	Cobalt	Chromium	
WELDING													
Metal Inert Gas (E70S) - Class A -Lines 1&2 * Located in New Building 655	60		5.20E-03	2.00E-04	1.00E-06	1.00E-06	1.00E-06	3.12E-01	1.20E-02	6.00E-05	6.00E-05	6.00E-05	0.01
Metal Inert Gas (E70S) - Class C *	40		5.20E-03	2.00E-04	1.00E-06	1.00E-06	1.00E-06	2.08E-01	8.00E-03	4.00E-05	4.00E-05	4.00E-05	0.01
								5.20E-01	2.00E-02	1.00E-04	1.00E-04	1.00E-04	0.02
FLAME CUTTING	Max. Metal Thickness Cut (in.)	Total Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)					EMISSIONS (lb/hr)					TOTAL HAPS (lb/hr)
			PM = PM10	Manganese	Nickel	Cobalt	Chromium	PM = PM10	Manganese	Nickel	Cobalt	Chromium	
Oxyacetylene - Class C	0.375	16.67	1.62E-01	5.00E-04	1.00E-04	N/A	3.00E-04	6.08E-02	1.88E-04	3.75E-05	0.00E+00	1.13E-04	0.00
Oxyacetylene - Class A **	0.375	16.67	1.62E-01	5.00E-04	1.00E-04	N/A	3.00E-04	6.08E-02	1.88E-04	3.75E-05	0.00E+00	1.13E-04	0.00
								1.22E-01	3.75E-04	7.50E-05	0.00E+00	2.25E-04	0.00
EMISSION TOTALS - WELDING & CUTTING													
Uncontrolled Potential to Emit (lbs/hr)								0.64	0.02	0.00	0.00	0.00	0.02
Uncontrolled Potential to Emit (lbs/day)								15.40	0.49	0.00	0.00	0.01	0.50
Uncontrolled Potential to Emit (tons/year)								2.81	0.09	0.00	0.00	0.00	0.09

METHODOLGY

* The welding computations revise those presented on Page 20 of 20 of the TSD, Appendix A to FESOP Renewal No. 039-14036-00220. The welding computations are revised to reflect Class A Lines 1 & 2 as consisting of four (4) floor assembly welding stations each using up to 10 lb/hr electrode, and four (4) sidewall/roof welding stations each using up to 5 lb/hr welding wire (these eight welding stations will be relocated to new building 655). Class C Line reflects two (2) floor assembly welding stations each using up to 10 lb/hr electrode, and four (4) sidewall/roof welding stations each using up to 5 lb/hr welding wire.

** Maximum assumed equal to total metal cutting rate for Class C (16.67 in./min), which was taken from original FESOP 039-5814-00220, issued December 9, 1996.

Emission Factors from AP 42 (January 1995), Chapter 12.19, Tables 12.19-1 and 12.19-2, with MIG default electrode type E70S.

Welding emissions, lb/hr: (max. lbs of electrode used/hr)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994), and other flame cutting factors are from U.S.EPA's SARA Reporting Guide.